

School of Computer Science and Mathematics Annual Newsletter



MARIST
UNIVERSITY

SUMMER 2024 - SUMMER 2025

FEATURED IN THIS ISSUE

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MESSAGE FROM THE DEAN

“Welcome to the 2024-2025 newsletter for the School of Computer Science and Mathematics (SCSM). It is my pleasure, privilege and passion to serve as SCSM Dean. This year’s newsletter highlights the amazing accomplishments of our students, staff, faculty, and alumni. I am confident that you will also be impressed with the volume and variety of what our School has accomplished in the last year.”

- Dean Ron Buckmire

SCHOOL OF CSM FACULTY NEW POSITIONS FOR 2024-2025

Dr. Roger Norton has been named the Richard Foy Chair in Computer Science. Dr. Richard Linus Foy (1929-2019) served as President of Marist College from 1958 to 1979. To recognize Dr. Foy’s extraordinary service to Marist on the occasion of his retirement, the Board of Trustees created the institution’s first endowed professorship, the Richard Foy Chair in Computer Science, in his honor. Dr. Norton has been on the faculty of the School of Computer Science and Mathematics since 1980 and served as Dean for 23 years, from 2001 to 2023; he is the first individual to occupy the Foy Chair.

SPOTLIGHTS

FACULTY DEVELOP NEW MINOR IN APPLIED ARTIFICIAL INTELLIGENCE



Dr. Carolyn Matheus, Professor of Information Systems, lead the development of the Applied AI Minor. More info can be found at: <https://www.marist.edu/applied-ai>

Beginning in Fall 2025, Marist University launched a new interdisciplinary Minor in Applied Artificial Intelligence (AI), designed to equip students across all majors with the knowledge and skills necessary to navigate an increasingly AI-driven world. The program emphasizes a balanced integration of technical proficiency, ethical inquiry, and real-world application, providing students with a solid foundation in AI literacy and critical thinking.

The minor was developed under the leadership of Dr. Carolyn Matheus, Professor of Information Systems, with collaborative support from Dr. Eitel Lauria (Professor of Data Science and Information Systems), Brian Gormanly (Senior Professional Lecturer of Computer Science), Dr. Kevin Gaugler (Assistant Dean of the School of Liberal Arts and Professor of Spanish), and Dr. Sasha Biro (Lecturer of Philosophy).

With a curriculum that highlights the ways in which AI can enhance rather than replace human capabilities, the program includes three core courses—AI Literacy, Ethical and Social Issues of AI, and AI Applications—along with a selection of interdisciplinary electives. This structure allows students to tailor their learning to their interests and fields of study while engaging with AI in meaningful and responsible ways.

Aligned with the goals of the Marist 100 strategic plan, the Applied AI minor exemplifies the university’s ongoing commitment to innovation, interdisciplinary collaboration, and preparing students to lead ethically and effectively in a technology-integrated future.

CSM UNDERGRADUATE STUDENT NAMED SPEAKER AT 2025 COMMENCEMENT



Evan P. Spillane '25, majors Cybersecurity, Philosophy; minors: Computer Science, Information Technology, Information Science, was the Undergraduate Student Speaker at the 2025 Marist University Commencement.

Evan served as president of the Class of 2025 for three years and as this year's student body vice president. He was also president of Marist Esports, where he became a two-time MAAC champion and organized a 24-hour charity livestream benefiting Sparrow's Nest, a local nonprofit. Additionally, Evan conducted quantum research through the Marist-IBM Joint

Study program for two years and published research with the Institute of Electrical and Electronics Engineers (IEEE). He presented this work at the Guide Share Europe technology conference in London. After graduation, Evan will join JPMorgan Chase as a software engineer and plans to return to higher education to pursue a master's degree and doctorate. Evan's favorite Marist memory: "Being selected as the student speaker for the Marist Class of 2025 undergraduate commencement ceremony."

MARIST IBM JOINT STUDY ON YOUTUBE!

Dr. Casimer DeCusatis, Associate Professor of Information Technology and Systems and Director of Cybersecurity Education, and Marist student interns in the Marist IBM Joint Study were featured in a YouTube video, which was created by the social influencer Tony Ow, also known as Tony Tech Bytes, who was brought to the Marist campus by IBM in the spring 2025 semester. You can watch us at:

www.youtube.com/watch?v=q36hfRHpaUw



FACULTY AWARDS & RECOGNITIONS



Dr. Matthew Glomski, Associate Professor of Mathematics, was awarded the 2025 Carol Crawford Award for Excellence in Undergraduate Teaching presented by the Mathematical Association of America (MAA) Metro New York Section. The MAA is one of the USA's largest community of mathematicians, and the Carol Crawford Award recognizes those individuals whose teaching and mentoring have had an extraordinary impact on undergraduate students. Dr. Glomski is also a past winner of the Marist University Board of Trustees

Faculty Award for Distinguished Teaching (in 2022).



Dr. Eitel Lauría, Professor of Data Science & Information Systems and Director of Graduate Programs, won the Best Paper Award for his paper entitled "Pre-dictors of Freshmen Attrition: A Case Study of Bayesian Methods and Probabilistic Programming" presented at the 14th International Conference on Data Science, Technology and Applications (DATA) conference, hosted by the Institute for Systems and Technologies of Information Control and Communication (INSTICC), held in Bilbao, Spain, June 10-12, 2025.



Dr. Duy Nguyen, Associate Professor of Mathematics and **Dr. Gissella Bejarano**, Assistant Professor of Computer Science, were awarded in the Spring of 2025 a three-year National Science Foundation (NSF) Research Experience for Undergraduates (REU) grant of \$375,000 from the Division of Mathematical Sciences (DMS-2447324) entitled "Statistical Mathematics and Research Training (SMART)". The purpose of the SMART REU program is to provide a unique opportunity for nine students per year to engage in original research

in statistics, data science, and mathematics, guided by dedicated Marist faculty members. More information can be found at: <https://marist.edu/smart-reu>

Associate Professor of Mathematics **Dr. Duy Nguyen** received word that he has been awarded a Fulbright to do a 6-week visit to Vietnam in Summer 2026. During his 42-day visit to Vietnam, he will be based in the Department of Mathematics at the International University – National University Ho Chi Minh City. He will deliver a short course titled “Recent Advances in Variational Inference.” His work will be with undergraduate students, graduate students, and young researchers in the field of statistics. Dr. Nguyen will deliver ten lectures covering the following topics: introduction to Bayesian statistics, variational Bayes, stochastic gradient descent algorithms, and natural gradient algorithms. In addition to the lectures, he will collaborate with the mathematics faculty at Ho Chi Minh International University, in particular, Dr. Bao Ta and Dr. Khanh Tran.



Senior Professional Lecturer of Computer Technology Chris Algozzine and student **Gianna Julio '25** equipment at the Wastewater Treatment Plant (WWTP) in Spring 2025. The WWTP can utilize the data from the equipment which tracks rainfall and other information. To access their history with Marist go to: Marist College Collaboration with Rhinebeck Village — Climate Smart Rhinebeck: Village Task Force at: <https://www.climatesmartrhinebeck.org/marist-collaboration>



Dr. Casimer DeCusatis, Associate Professor of Information Technology and Systems and Director of Cybersecurity Education, and **Brian Gormanly**, Senior Professional Lecturer of Computer Science hosted a Robotics demonstration table at the Marist University event on January 29, 2025. Info at: <https://www.marist.edu/university-day> Dr. DeCusatis also participated on a panel discussion on AI and Risk



Management, at the World Salon x Digital Fireside Series AI on the Frontlines: Redefining Risk Management in the Age of Cybersecurity Threats, sponsored by Columbia University on April 11, 2025. Professor Gormanly was a featured panelist at the [2025 Hudson Valley Artificial Intelligence Summit](#) hosted at Marist on June 18 co-sponsored by Dutchess County and Marist University.



Dr. Bowu Zhang, was accepted to present at the 2025 New York Celebration for Women in Computing (NYCWIC 2025) on April 11, 2025, at the Double Tree by Hilton in Poughkeepsie, NY. Her talk was entitled Application of Homomorphic Encryption in Secure and Efficient Communications in Resource-constrained Devices. Info at: <https://www.nycwic.org/program2025>

EVENTS

STEM & DEI SPEAKERS SERIES!

In Spring 2025 the School of Computer Science and Mathematics began a collaboration with the Office of Diversity and Equity to launch a speaker series devoted to the intersections of STEM (science, technology, engineering, and mathematics) and DEI (diversity, equity, and inclusion). In Spring 2025, STEM & DEI series sponsored two events, on February 25 (Dr. David Watts) and April 15 (Dr. Catherine Roberts). Speaker biographies are given below.

David K. Watts, Ph.D.

Dr. Watts is currently the Vice President, IBM Z AI, Operating Systems, and Firmware. He is responsible for world class teams developing and delivering the next generation of differentiated, AI Powered IBM Z offerings to new and existing clients and markets. Prior to this he was the Vice President of IBM Systems Strategy responsible for establishing and implementing the strategic

direction for IBM Systems in collaboration with the IBM Systems Senior Vice President, Chief Financial Officer, brand General Managers, business partners, sales, and marketing. Dr. Watts also served as the Director of IBM Systems Technology Development leading a global organization across multiple sites and countries, with teams responsible for development and delivery of next generation IBM Systems and services. Dr. Watts has also owned driving the Research and Development Joint Program for the Vice President of Technology Development in collaboration with IBM Research to achieve strategic and tactical priorities within the program budget. Prior to this, he managed technology development at IBM's Semiconductor Research and Development Center (SRDC), where his work in collaboration with IBM Alliance partners such as AMD, Samsung, Toshiba, Chartered, Infineon, and Freescale, enabled the successful integration of advanced technology from research through to manufacturing. Prior to IBM Dr. Watts has a proven track record of success in technology development at large, mid-sized, and small start up companies, beginning in Austin, Texas at Motorola's Advanced Products Research and Development Labs (APRDL), where he successfully developed and ramped into manufacturing industry leading technology, followed by midsized and small start up companies in Silicon Valley, California. Throughout his career Dr. Watts has demonstrated innovative excellence, collaborative cocreation, and product delivery with numerous high value patents, publications and invited or keynote presentations. He received his undergraduate and graduate education from Carleton College in Minnesota, the University of California at Berkeley and the University of Colorado at Boulder.



Catherine A. Roberts

Ms. Roberts is an American mathematician who was the first woman executive director of the American Mathematical Society. She is a professor at the College of the Holy Cross. Dr. Catherine A. Roberts is a Professor at the College of the Holy Cross in Worcester, MA. She teaches courses in mathematical modeling and environmental studies. She served as the first woman Executive Director of the American Mathematical Society and was the first woman Editor-in-Chief of the journal Natural Resource Modeling. She is a 2021 Fellow of the Association for Women in Mathematics. Roberts graduated from Bowdoin College in 1987 with a Bachelor of Arts, magna cum laude, in mathematics and art history, along with a teacher certification in math. She graduated from Northwestern University in 1992 with a Ph.D. in applied mathematics and engineering sciences. https://en.wikipedia.org/wiki/Catherine_A._Roberts



2024-2025 MATHEMATICS COLLOQUIUM SERIES

- **13 September 2024:** Six Marist math students spoke about their summer internships to a packed house of students and faculty! In this annual event participants share all their experiences — from the first round of interviews to a “day in the life” of a summer intern. The panelists were Griffin Carey (RKT Holdings), Dreema Manganiello and Kiera Burns (Marist College CSM), Elena Morgan and Isabel Pappas (Travelers), and Levi Cartiera (UPS).
- **20 September 2024:** Ryan Jaswell, AVP of the Product Management Development Program (PMDP) at Travelers, addressed a large and enthusiastic crowd of mathematics majors on internship and career opportunities with his company. He presented alongside applied math seniors Elena Morgan and Isabel Pappas — once and future Travelers employees themselves!
- **27 September 2024:** Five Marist mathematics grads returned to campus to take part in the department's first ever Early Career Teachers Panel. Alex Cottrell (John Jay High School), Alexia Hill (Odessa High School), Grace Johnson and Joe Keane (both Union Vale Middle School), and Max Labrenz (Our Lady of Lourdes High School) shared all the details — both the exhilarating and the exhausting — from landing their first teaching job to ‘a day of the life’ of a math/SPED teacher in the classroom.
- **25 October 2024:** Seven department grads — Hope Neveux (Harvard University), Nick Toubacaris (Memorial Sloan Kettering Cancer Center), Kyle Mulkins (Markertek), Skylar Ulrich (UnitedHealth Group), Jess Cerbone (Bloomberg LP), Julia Blake (S&P Global) and Jon Blake (Apollo Global Management) — returned to campus on a beautiful fall day to take part in the

annual Mathematics Alumnae/i Career Panel. In front of a packed house they discussed the hiring process, described a day in their professional lives, and fielded student questions on internships, graduate school and careers.

- **08 November 2024:** Junior Isabella Garcia '26 presented to students and faculty of the department on her summer project, "Reconstruction of Radiating Point Sources from Single Frequency Data in a 2D Acoustic Waveguide" — research she conducted at her summer REU at Kansas State University. Senior Dana Shadoan then presented on her summer research, "Finite Groups with m Elements of Order n " — a project in group theory she conducted under the advisement of Dr Joseph Kirtland.
- **15 November 2024:** Amy Pitts (Class of 2020) returns to Marist to deliver the annual Richard J McGovern Lecture! Amy — currently a PhD candidate in biostatistics at Columbia University Mailman School of Public Health — gave a fascinating talk to students and faculty, "Inference of health outcomes among patients with HIV during COVID-19 pandemic: using MRP model to improve survey representativeness."
- **22 November 2024:** Dr Ron Buckmire, Dean of the School of Computer Science and Mathematics, gave a presentation "Different Differences," focused on nonstandard finite difference methods to approximate the derivatives that appear in differential equations as a solution technique. Dr. Buckmire concluded the talk with a brief overview of his own journey in mathematics.
- **06 December 2024:** Rachel Dean puts an exclamation point on the semester's Seminar Series with her talk, "Laplace Transforms, the Gamma Function, and Weird Factorials!" In her presentation, she drew on mathematical techniques from the 18th to the 21st centuries to shed light on a challenging family of problems in differential equations.
- **14 February 2025:** Dr. Lauren Rose, from Bard College, and Dr. Timothy Goldberg, from Lehigh University, delivered the talk Quads: A Set-like Game with a Twist at the Department's Seminar Series. There were many hands-on activities that helped the audience discover some of the properties of the game Quads.
- **21 February 2025:** Class of 2017 applied math grad Krissy Lawler delivered the 2025 Richard J McGovern lecture: "How do stocks actually trade? A crash course on US equity market structure." Krissy delighted a packed house and spoke with students for nearly an hour afterward.
- **28 February 2025:** Class of '21 applied math graduate and current University of Pittsburgh PhD candidate Edison Hauptman returned to Marist to present "An undergrad-friendly journey through graduate level combinatorics." In his talk, he spoke about tensor products, generating functions, and asymptotics — from the perspective of a graduate student who had to learn these ideas the hard way.

COLLABORATIONS – WOMEN IN STEM!



07 November 2024: Women in Tech Panel Discussion and Mentoring Event, engaged participants in conversations about the vast variety of careers available to Computing Technology and Mathematics majors. Following the panel discussion, students were able to speak to mentors individually to gain valuable information to help them with their own career paths!

CSM STUDENT EXPERIENCE HIGHLIGHTS

STUDENT INTERNSHIPS, RESEARCH, REUS, AND HIGH SCHOOL PROGRAMS ON MARIST CAMPUS

During the 2024-2025 Academic Year, there were 10 students in the Marist IBM Joint Study who worked on 6 projects with 5 Marist faculty advisors, with 5 students funded by Marist IT, 1 student funded by the Marist EVP's office, and 4 students funded by IBM. 8 out of the 10 students were Marist employees and worked on Marist campus during the summer and/or fall 2024 and/or spring 2025 semester. During their Joint Study experience students worked with Marist



faculty advisors and subject matter experts from Industry. They attended and presented at 10 technical conferences across the country and the globe, and won 4 awards for Best new conference speaker, Best Technical Project, People's Choice Award, and Runner-up Best Poster. The interns toured IBM facilities, supported the Newburgh Enlarged City School District Smart Scholars Early College High School program, and volunteered their time to support the community. (photos courtesy of IBM - Joint Study Highlights slide deck, April 28, 2025)

Projects Included:

Joint Study Projects	Faculty Advisor
A comparison of quantum computer algorithms for mitigation of DoS attacks.	Casimer DeCusatis
Cybersecurity for Precision Time Protocol – Covert channels, code injection, spoofing and DoS attacks.	Casimer DeCusatis
Evaluating the viability of academic literature suggestions generated by large language models.	Brian Gormanly
Systems administration and building high-power computing clusters for research and artificial intelligence.	Chris Algozzine
Develop ISCF enhancements for latest release of z/OS.	Marilyn Kienzle
Develop a high-level design (HLD) quick start wizard to improve ease of use for developers.	Marilyn Kienzle

Interested in more information? Take a look at the Marist IBM Joint Study Internship Program: <https://www.maristcircle.com/features/2024/9/27/marist-and-ibm-collaboration-within-and-beyond-the-classroom>

EXPERIENTIAL LEARNING IN COMPUTING TECHNOLOGY



Amanda Potenza '25. *“One of Marist University’s standout research* opportunities is the Marist/IBM joint study program. This collaboration has grown tremendously since its inception in 1988, and as a member of the program since May 2024, it’s been an incredible honor to contribute to its growth and legacy. My experience with the joint study has been truly unforgettable; I am so grateful for the opportunity to delve into the world of computer science hand-on through real world projects, corporate atmosphere, incredible coworkers, presentation opportunities, and more. I officially began my work for the program during the summer entering my senior year of undergrad. During my time, I worked very closely with the Integrated Cryptographic Service Facility (ICSF) at IBM, building cryptographic tools for the next release of z/OS. I also contributed to adapting ICSF’s code to support NIST’s newly standardized quantum-safe algorithms, Crystals-Kyber and Crystals-Dilithium. I primarily worked with mentors at IBM but also received input from my Marist faculty advisor (an IBM veteran). My favorite experience from the joint study was presenting in England at “Guide Share Europe” (GSE), an annual conference celebrating mainframes. I presented with a co-worker, Evan Spillane, about introducing younger generations into the world of enterprise computing and mainframes. Our presentation was very well received and hopefully will jumpstart Marist’s attendance in future occurrences of the conference. I am pleased and honored to share that I also won the “Best New Speaker” award at this conference. Along with GSE, I presented by work at CURSCA, IBM TechConnect, and at an executive stakeholder showcase at the end of the academic year. These presentations showcased a culmination of hard work, innovation, and collaboration. The computer science program at Marist is just one of many facets that makes the school so unique. Outside of CS, the music department has been a formative component of my undergraduate experience. I am involved in 3 groups: singers, a cappella/Enharmonics, and chamber choir, all of which brought me some of my fondest memories. I was a director of the Enharmonics for my junior and senior years where I arranged music, led rehearsals, planned events, and more. I even got to perform in Carnegie Hall as a part of Chamber Choir! If I could give any piece of advice to an incoming Marist student, I would tell them to “take chances.” You will not get the opportunity if you don’t try. This involves being open to trying things that scare you. If I let intimidation stop me, I would not be in the joint study program, and I would have never gotten the opportunities that came along with it. Take risks, who knows where you will end up!”



Cassidy Heulings '26 – *“The project I worked on was the NTS for PTP* project. I focused on researching and testing primarily the client side of the server in the protocol, contributing to protocol enhancement. I set up and configured an environment for testing, ensuring compatibility and smooth implementation of new python code. Along with this, I successfully established a secure connection between client and server by implementing the transmission of association mode records and the reception of current and next parameters, including security associations and validity period. Finally, I implemented a periodic key request mechanism according to the validity period of the current parameters, ensuring updates of current and next parameters in the client, managing client configurations, and ensuring correct processing and storage of parameters in a linked list data structure. I only

worked on this over the summer for 3 months, so I did not attend any conferences. However, I did have the opportunity to volunteer for the Newburgh ECHS summer program and the IBM take your child to work day. During my time at Marist, I have been a part of many extracurriculars including a semester playing intramural volleyball, volunteering for Campus Ministry at a local elementary school, and attending Computer Society meetings. Additionally, I went abroad to Marist's second campus in Florence, Italy for a semester. There are no computer science classes abroad, but luckily I was able to plan ahead freshman year so that I could take four core/pathway electives while still on the path to graduate with a major in Computer Science and three minors. My experiences at Marist have been extremely beneficial not only to my educational development, but also my personal growth. I have learned how to manage my time and balance my professional life with my personal life. I've gained so many great relationships throughout my experience, including friendships I'll have for the rest of my life, valuable professional connections, and everything in between. One of the reasons I attended this school was the Marist IBM Joint Study Program, as, in my mind, it was the perfect way to get professional experience along with working on research that matters towards more than just a grade. Now that I've had the opportunity to be a part of this, I can confidently say I was correct.

The piece of advice I would give is to take advantage of every opportunity offered to you. To me, that meant showing up to internship fairs and applying to research projects as soon as summer of freshman year. Although I didn't land anything freshman year, I got the Joint Study position my sophomore year, starting the summer after my sophomore year. I remember at the beginning of my summer research, I felt a strong sense of imposter syndrome. At first glance, the project overwhelmed me and I started to question if I was even qualified for the position. However, after some getting used to the environment, learning the code, and reading up on the protocol, I knew I had exactly what it took and that I could contribute some valuable research to the project. There were still times where I would get stuck or needed guidance, but with my mentors and colleagues' help, I was able to get past those roadblocks and learn some new things along the way. What I'm trying to say through all this is that the first step towards your dream is putting yourself out there and giving every opportunity a shot. You can achieve more than you think."

<https://www.marist.edu/w/profiles/cassidy-heulings>

EXPERIENTIAL LEARNING IN MATHEMATICS



Griffin Carey'26 – *"During my time at Marist, I have had several diverse experiential learning opportunities to both better develop my education and myself outside of the classroom. After my first year, I was able to do a spring attachment program in Italy studying the integration of business and society as well as spend the rest of my summer taking classes in Dublin, Ireland. My study abroad experience allowed me to immerse myself into the culture as well as learn how to balance my time and live in an unfamiliar environment beyond the typical classroom experience. It really allowed me to make the most of my first year and set me up to land my future internships.*

The next summer I capped off my sophomore year by joining Rocket Companies through an internship with their Enterprise Risk Management team. On that team, I was able to work specifically with their Insurance Risk team. My work primarily focused on analyzing their various insurance risks and premiums, making sure that the company was protected and they had adequate

coverage on their various policies. I was also able to intern with Citi after my junior year on their Valuations Control Group External Reporting Team. On this team, I focused on the consolidation and reporting of asset leveling data from around the globe as well as evaluating different ways to report on unobservable inputs within the bounds of both U.S. GAAP and IFRS reporting internationally. The best part of this experience was that I could blend both my analytical background with more qualitative work evaluating different ways to present information.

Outside of my internships and study abroad opportunities, I am also working with Professor Duy Nguyen on an Honors Thesis Project where I am currently studying the relationship between consumer sentiment and S&P 500 returns utilizing Geometric Brownian Motion and Autoregressive Modeling. I have also been able to take a leadership role on campus by joining the Student Government Association (SGA) as the Chief Financial Officer, which has allowed me to push for changes on campus based on student concerns. Finally, I have been able to build great friendships as a member of Marist's Concert and Athletic Bands, where I had the opportunity to travel to Atlantic City to play and cheer on the Marist basketball teams during the MAAC tournament.

If I had to give one piece of advice, I would tell prospective students to just be open to opportunities and if something seems interesting, just pursue it. I have changed my degree plan three separate times over my time at Marist and changed my career plans more times than I can count because my different experiences pushing my comfort zone have helped me learn both what I have loved and hated. If someone asked me during my first year what I thought I was going to do, I would have told them a wildly different career and course of study than I am pursuing now. In college I didn't just grow in my studies but grew as a person and that growth involved learning more about myself and what I am passionate about. I only got that growth by pushing myself, by taking on that challenge or exploring that topic that interested me. If I had kept my original plan, if I had turned down opportunities because they were scary, I never would have studied abroad, I would not have gotten my internships, and I would have a fraction of the fantastic memories and experiences I have accumulated over just the past three years."



Grace Gorreck '27 – *“One of the best aspects of Marist University’s Department of Mathematics is the tight-knit, supportive community it fosters. By the end of my first week of my freshman year, my professors had already gone out of their way to get to know me and introduce me to the department’s many resources. I quickly discovered the third floor of Hancock, home to the Math Lab, the atrium (which is always stocked with snacks, candy, and stickers), and the professors’ offices. At the same time, although I was still unsure of my path in mathematics, I was encouraged to attend the Department of Mathematics Seminar Series. The very first event I attended featured upperclassmen presenting their summer research projects. While I didn’t understand any of the math at the time, their enthusiasm for research resonated with me and inspired me to pursue it myself.*

The following year, I began an independent study in mathematical epidemiology with Dr. Matthew Glomski. This project served as my introduction to mathematical research, and I explored different compartmental models and used them to understand the dynamics of infectious dis-

eases, specifically looking at how diseases can be eradicated. This experience, along with my professors' encouragement, helped me successfully apply to a Research Experience for Undergraduates (REU).

During the summer between my sophomore and junior years, I spent ten weeks fully immersed in a collaborative project in mathematical biology and ecology. Most of my time was spent developing an agent-based model to optimize the spatial distribution of flowering agave on bat-friendly tequila plantations and using MATLAB to analyze data collected from our model. On top of strengthening my skills and knowledge in mathematical modeling, coding, and the power of mathematics in addressing environmental challenges, this project also strengthened my skills as a writer and communicator and is enabling me to present at multiple local and national conferences.

Beyond research, I tutor in the Math Lab, a student-run drop-in center serving hundreds of students each semester. I've learned just as much from teaching peers as I have from the coursework for my classes. I also serve on the Math Club executive board, helping organize meetings and events for students, work as a tour guide and greeter in the Admissions office, play in nearly every intramural sport league, and am a peer mentor for first-year students.

What I appreciate most about Marist is our ability to "do more." Opportunities are everywhere, and professors want to help you succeed. My advice to new students is to get involved early and make connections. You never know the impact one simple conversation may have in shaping your future. Halfway through my Marist career, I've engaged in research, tutoring, leadership, and intramural sports, and I'll study abroad in Florence, Italy, next semester. All these opportunities to "do more" are a direct result of the strong, supportive environment here, and I'm excited to see where they lead next."

MATHEMATICS STUDENTS SUMMER EXPERIENTIAL LEARNING OPPORTUNITIES

INTERSHIPS IN SUMMER 2024

Isabel Pappas '25 and **Elena Morgan '25** spent their summer as interns in the Product Management Development Program at Travelers in Hartford CT // **Griffin Carey '26** (mathematics/business administration) spent his summer in Detroit as an intern at RKT Holdings / Rocket Companies in the firm's Enterprise Risk Management group

Mathematics Education graduate student **Kiera Burns '24/25** and undergraduate **Dreama Manganiello '26** worked as senior coordinator and assistant coordinator, respectively, in the Newburgh Enlarged City School District Smart Scholars Early College High School (NECSD ECHS) Summer Program. They worked to administer on-campus instruction in computer science at Marist to nearly 70 Newburgh Free Academy students

Levi Cartiera '25 spent the summer working as an intern in the IT department at UPS. His experience at UPS was one of many opportunities he took advantage of during his student years at Marist, including working on campus as a math and programming tutor, and a teacher's assistant for the Newburgh Early College High School summer program.

REUS AND SUMMER RESEARCH OPPORTUNITIES 2024

Rachel Dean '25 spent her summer at the Budapest Semester in Mathematics, a highly selective and well-regarded program rooted in the Hungarian tradition of mathematics instruction.

Isabella Garcia '26 took part in the Summer Undergraduate Mathematics Research Program at

Kansas State University. She and her team worked on an open problem in the field of computational imaging.

Dana Shadoan '25 received a Roger & Cheryl Norton Summer Undergraduate Summer Research Fellowship to work on a project titled "Finite Groups with m Elements of Order n ." This work was done under the guidance of Marist Professor of Mathematics Dr. Joseph Kirtland.

REUS AND SUMMER RESEARCH OPPORTUNITIES 2025

Grace Gorreck '27 participated in the Mathematics & Statistics REU at James Madison University in Harrisonburg, Virginia working on a project titled "Optimizing the Distribution of Fruiting Agave on Bat-Friendly Tequila Plantations."

Gaby Ramon '27 participated in the Directed Research for Undergraduates in Math and Statistics (DRUMS) REU program at NC State University in Raleigh, North Carolina to explore the intersection of math, data science, and real-world applications on a project entitled "Multi fidelity sensor placement in Bayesian inverse problems".

CSM STUDENTS PARTICIPATE IN INTERNSHIPS, RESEARCH, REUS, AND SUPPORT HIGH SCHOOL PROGRAMS ON MARIST CAMPUS



The School of Computer Science and Mathematics had 25 students on campus over the Summer of 2025 doing work as Marist Joint Study Interns, Research Fellows, NSF grant REU Students and student workers supporting the Newburgh Smart Scholars Early College High School Program.

In photo from left to right:

- **Jozef Maselek '26**, and **David Galindo-Delgado '27** worked on the ECRL: Enterprise Computing Research Lab – Systems administration and building high-power computing clusters for research and artificial intelligence. Marist faculty advisor: **Chris Algozzine**
- **Paul Bergeron '26** worked on a project investigating Wi-Fi versus Ethernet Congestion platforms. Marist faculty advisor: **Sandhya Aneja**
- **Linda Mukundwa '26** and **Colin Boykin '27** worked on Tributary, a software platform designed to capture and preserve the individual stories that shape the human experience. Marist faculty advisor: **Brian Gormanly**



Six Summer Research Fellowship Students supported by Ross and Barbara Mauri and other School of Computer Science and Mathematics Gifts and Endowed Funds, researched a variety of computing technology and mathematics topics with Marist faculty.

In photo from left to right:

- **Zachary Outman '26**, did research on Developing a Behavior-based Malware Solution for MacOS - Stealer Malware (Cybersecurity), with Marist faculty advisor **Dominick Foti**.
- **Colin Martin '26**, did research on Optimizing Privacy-Preserving Sign Language Recognition (Data Science/Math), with Marist faculty advisor **Gissella Bejarano**.
- **Michael Kurilko '27**, did research on Probabilistic Record

Linkage & Deduplication (CS), with Marist faculty advisor **Brian Gormanly**.

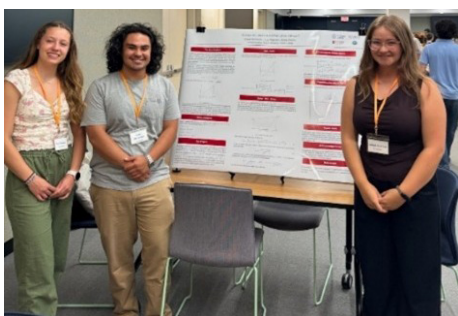
- **Thomas Bruce '27**, did research on Graph-Based Identity Verification & Uniqueness Enforcement (CS), with Marist faculty advisor **Brian Gormanly**.
- **Marcus Regan '27**, did research on Applying Machine Learning to Automate and Enhance CVE Mapping in Cyberspace (Cybersecurity), with faculty advisor **Dominick Foti**.
- **Cayleigh Goberman '26**, did research on Goal-Oriented Response Planning (GORP): Adaptive cyber-defense inspired by video game AI (Gaming) with Marist faculty advisors **Matt Johnson** and **Melissa Chodziutko**.



Nine students from various institutions participated in the [NSF-funded SMART REU](#) on Marist Campus during the summer of 2025.

In photo, back row: Lydia Bullock, Isobel Peterson, Alexander Beckford, Addison Hoermann, Ryan Jimenez; front row: Grace Stoner, Oscar Hernandez, Richard Farina, Leah Burian

- **Oscar Hernandez '27** from Amherst College, **Grace Stoner '27** from Marist University, and **Isobel Peterson '27** from Union College, worked with Marist faculty advisor **Matt Glomski**.
- **Richard Farina '27**, from Union College, **Lydia Bullock '26** from Hamilton College, and **Leah Burian '27** from University of Massachusetts Amherst, worked with Marist faculty advisor **Reza Sadeghi**.
- **Alexander Beckford '26**, from Rochester Institute of Technology, **Addison Hoermann '26** from Smith College, and **Ryan Jimenez '27**, from Loyola Marymount University, worked with Marist faculty advisor **Malick Ndiaye**.



The Statistical Mathematics and Research Training (SMART) REU program offers a unique research experience to 27 talented undergraduate students from diverse backgrounds over the course of three years. Organized and led by **Duy Nguyen** (PI) and **Gissella Bejarano** (co-PI), the program spans 8 weeks and immerses students in real-world problems, equipping them with essential skills in statistics, data science, and mathematics through hands-on research projects. Most importantly, it provides them with valuable experience conducting independent research.



This year, in addition to working on their research with REU mentors, SMART REU students took part in a variety of enriching activities, including workshops on Scholarships, Fellowships, and Grants; Lunch and Learn sessions; Movie Night; and Lawn Games organized by **Sabrina Campbell**! They also enjoyed a scenic hiking trip around Lake Minnewaska led by Dr. Matt Glomski.

A highlight of the summer was their participation in the REU Conference at Jane Street in NYC on July 21, 2025, where they presented their research posters to a broader academic audience.

STUDENTS SUPPORT OUTREACH

Five students who worked on campus during the summer of 2025 were students supporting the Newburgh Smart Scholars Early College High School program as Computing Technology course Teaching Assistants and Student Assistant Summer Program Coordinators. These students were Dreama Manganiello '26, Student Summer Program coordinator, Maya Zutshi '28, Student Assistant Summer Program Coordinator, Emily Ramirez '28, Teaching Assistant for CMPT 120 Intro to Programming, Ethan Korkes '27, Teaching Assistant for CMPT221 Software Development II, and Charlie Samuel '26 for CMPT 416 Intro to Cybersecurity.

STUDENTS PRESENT HIGH-IMPACT RESEARCH & PROJECTS

New York Celebration of Women in Computing (NYCWIC 2025) was held on April 11-12, 2025 at the DoubleTree by Hilton Hotel in Poughkeepsie, NY and included Marist School of CSM student participation. <https://www.nycwic.org/program2025>

Accepted Marist Student Talk Presentations:

- **Sindhuja Ravikanth '26**, "Detecting Security Breaches in the Dark Web." Marist Faculty Advisor: **Reza Sadeghi**
- **Jankarlo Villanueva '25, Tristan Barboni '25, Hannah Gidos '25, Kyle Courounis '25**, "Threat-Based Vulnerability Prioritization Through Prompt Engineering." Marist Faculty Advisor: **Dominick Foti**

Accepted Marist Student Poster Presentations:

- **Fredrick Berberich '25, Daniella Boulos '25, Christopher Drisdelle '25, and Julianna Russo '25**. "Mac Malware Detection." Marist Faculty Advisor: **Casimer DeCusatis**
- **Christian Sarmiento '25**, "Benchmarking Variations of RAG for Real-World Applications." Marist Faculty Advisor: **Eitel J. M. Lauría**
- **Amanda Potenza '25**, "Cryptographic Key Management Tools for ICSF." Marist Faculty Advisor: **Marilyn Kienzle**
- **Frederick Berberich '25, Jozef Maselek '26, Ryan Rosenkrans '24**, "Enterprise Computer Research Lab (ECRL) As A Service - Cloud in a Rack." Marist Faculty Advisor: **Chris Algozzine**
- **Cayleigh Goberman '26**, "AI in Gaming: Past, Present, and Future." Faculty Advisor: **Matt Johnson**.

- **Griffin Carey '25**, "High Level Design Documentation Quick Start Wizard." Marist Faculty Advisor: **Marilyn Kienzle**
- **Nicolas Suchy '25**, "Predicting the Legitimacy of URLs."
- **Luciano Mattoli '25**, "Network Time Security Encryption of Precision Time Protocol." Marist Faculty Advisor: **Casimer DeCusatis**
- **Ryan Eagar '25, Jackson Schlosser '25, Anthony Scappaticci '25, Nicholas Suchy '25, Nico Conarpe-Martinez '25, Esther Nanjala Wekesa '25**, "The Leo Project: Cybersecurity for Clean Water Systems in Africa." Marist Faculty Advisor: **Casimer DeCusatis**
- **Zachary VanDerVelden '25, Nathaniel Desany '25, Fernando Pizzano '25**, "Security Profiles for Linux using KVM." Marist Faculty Advisor: **Casimer DeCusatis**

MATHEMATICS STUDENTS PRESENT RESEARCH

- **Isabella Garcia '26** gave the talk "Reconstruction of Radiating Point Sources in a 2D Acoustic Waveguide" at the 2025 Joint Mathematics Meetings (JMM) held in Seattle, WA. She presented research conducted with Julia Lewis-Borgia from Smith College and Ashley Song from Rice University at their summer 2024 REU at Kansas State University. The JMM is the largest mathematics conference in the world, with approximately 6,000 attendees every year.
- **John Sprague '25** presented his poster "Counting Tetrahedra in Three Dimensions" at the Fall 2024 Honors Poster Thesis Exhibit held on December 3, 2024. John presented independent research completed under the guidance of Associate Professor of Mathematics **Dr. K. Peter Krog**.
- **Isabel Pappas '25** presented her poster "Continuous and Discrete Population Models" at the Fall 2024 Honors Poster Thesis Exhibit held on December 3, 2024. Isabel presented independent research completed under the guidance of Associate Professor of Mathematics **Dr. Matthew Glomski**.
- **Elena Morgan '25** has a peer-reviewed publication. Her paper, "On fast reconstruction of periodic structures with partial scattering data," appears in the American Mathematical Society journal Electronic Research Archives. The manuscript is the product of research conducted by Elena, her colleagues, and her mentors at the summer 2023 math REU at Kansas State University. The full paper, along with a complete list of

co-authors, can be found at:

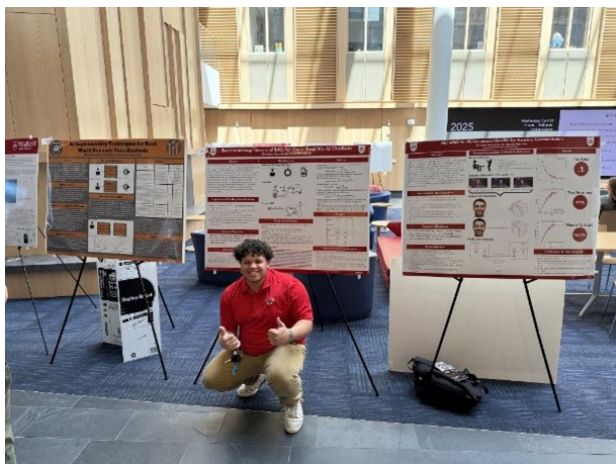
<https://www.aimspress.com/article/doi/10.3934/era.2024303>

- **Mason Matheus '28, Gabriela Ramon '27, Isabella Garcia '26, Dana Shadoan '25, Rachel Dean '25 and Paige Carbone '25** spent a thrilling day at the 2024 Symposium for Undergraduate Mathematics Research, held on September 28, 2024, at SUNY New Paltz. The purpose is to provide an opportunity for students to present research they recently conducted (typically over the summer), get students from mid-Hudson valley colleges/university together, and to introduce students to research that can be done as an undergraduate in mathematics.
- **Isabella Garcia's** talk "Reconstruction of Radiating Point Sources from Single Frequency Data in a 2D Acoustic Wavelength" was based on joint work with **Julia Lewis-Borgia** from Smith College and **Ashley Song** from Rice University, conducted at their summer 2024 REU at Kansas State University.
- **Dana Shadoan's** talk "Finite Groups with m elements of Order n " was based on the research she conducted over the summer, under the guidance of Marist faculty member **Joseph Kirtland**, with funding from the Roger and Cheryl Norton Endowed Summer Research Fellowship.

Congratulations to Isa and Dana for presenting their summer research projects to a very large room of mathematicians!

STUDENTS SHARE RESEARCH AT CURSCA IN SPRING 2025

Christian Sarmiento presented three research projects at CURSCA 2025 (the annual celebration of undergraduate research, scholarship & creative activity at Marist University)



ACADEMIC TALKS

- **Dana Shadoan** *Finite Groups with m Elements of Order n*
- **Dev Shah** *Analyzing the Accuracy of Object Recognition Models on Non-Photorealistic Images*
- **Tristan Wistuba, Victoria Iuzzolino, & Emily Liguori** *Analyzing Environmental Spending Trends: A Comparison Across Political Party Preference and Awareness*

POSTER PRESENTATIONS

- **Frederick Berberich, Jozef Masalek, & Ryan Rosenkranz** *ECRL As a Service - Cloud in a Rack* Faculty mentor: Prof. **Christopher Algozzine**
- **Elsa Blease & Caroline Eagen** *Predicting Median Housing Price in New York State: Integrating Economic Indicators with Time Series Forecasting* Faculty mentor: Prof. **Gissella Bejarano**
- **Adrianna Bordonaro** *System Architecture in Video Game Preservation* Faculty mentor: Prof. **Christopher Algozzine**
- **Griffin Carey** *AI Development on IBM Systems* Faculty mentor: Prof. **Marilyn Kienzie**
- **Christopher Drisdelle, Frederick Berberich III, Daniella Boulos, & Julianna Russo** *Leveraging Apple's Endpoint Security for Mac Malware Detection Through Machine Learning* Faculty mentor: Prof. **Dominick Foti**
- **Hannah Gidos, Tristan Barboni, Jankarlo Villanueva, Kyle Courounis, & Dominick Foti** *Threat-Based Vulnerability Prioritization Through Prompt Engineering* Faculty mentor: Prof. **Dominick Foti**
- **Cayleigh Goberman** *AI in Gaming: Past, Present, and Future* Faculty mentor: Prof. **Matthew Johnson**
- **Elizabeth Herrera, Luca Gristina, Easton Eberwein, & Austin Frank** *Olympic Medal Predictions Powered by Deep Learning* Faculty mentor: Prof. **Reza Sadeghi**
- **Gianna Julio Landsman** *Kill Flooding Alert System* Faculty mentor: Prof. **Christopher Algozzine**
- **Luciano Mattoli, Cassidy Heulings, Clay Kaiser** *Network Time Security for Precision Time Protocol* Faculty mentor: Prof. **Cassimer DeCusatis**
- **Ashley Ojeda, Owen Whelan** *Optimizing Learning Outcomes with Artificial Intelligence Insights from the GAIN Framework* Faculty mentor: Prof. **Kevin Gaugler & Prof. Carolyn Matheus**
- **Giuliano Piscitani, Connor Eddy, Andrew**

Casamento, & Dominick Foti *Dark Web Reconnaissance* Faculty mentor: Prof. **Dominick Foti**

- **Amanda Potenza** *ICSF Cryptographic Key Management Tools* Faculty mentor: Prof. **Marilyn Kienzle**
- **Nicholas Psaras, Ryan Munger, Zachary Giardina, Daniel Beaver, Marko Pavic, & Sanjana Peter** *Advanced Bluetooth Low Energy Security* Faculty mentor: Prof. **Dominick Foti**
- **Christian Sarmiento & Luke Pecovic** *AI Explainability Techniques for Real-World Dynamic Tone Analysis* Faculty mentor: Prof. **Brian Gormanly**
- **Christian Sarmiento** *Benchmarking Variations of RAG for Real-World Applications* Faculty mentor: Prof. **Eitel Lauria**
- **Christian Sarmiento** *AlphaNet: An Alpha-numeric Classifier for Assistive Technology* Faculty mentor: Prof. **Gissell Bejarano**
- **John Sprague** *Barycentric Coordinates and the Bottema Theorem* Faculty mentor: Prof. **Malick Ndiaye**



STUDENTS WIN AWARDS AND RECOGNITION PRESENTING RESEARCH AND PROJECTS

Marist University Cybersecurity students, **Ryan Eagar '25, Anthony Scappaticci '25, Jackson Schlosser '25, and Nicholas Suchy '25**, won a First Place Award for their Cybersecurity project presented at the Mid-Hudson IEEE Cybersecurity Ethics Competition held October 23, 2024, and were also recognized at the annual Mid-Hudson IEEE dinner held at the I Borghese in March 2025.



Two undergraduate senior capping projects from Marist were recognized as winners of the annual Mid-Hudson IEEE Capping Awards. This competition is held each spring, when the local IEEE invites students from all the local schools (Marist, SUNY New Paltz, Bard, Vassar, Dutchess Community College, and West Point) to submit their undergraduate senior projects. This year's competition included 8 projects which were evaluated by a group of 3 IEEE volunteer judges using an evaluation rubric which includes project motivation, technical content, innovation, and impact on society. Usually, the IEEE only selects one winning project, but this year they decided that the top two projects should both be recognized since their scores were so close together. This year's winning projects were:



"Detecting Mac Malware by Implementing Machine Learning Algorithms", by **Daniella Boulos'25, Fred Berberich'25, Julianna Russo'25, and Chris Drisdelle'25** (advisor/sponsor **Dominick Foti**)

"The Leo Project: Cybersecurity for Clean Water Systems in Africa" by **Ryan Eagar'25, Jackson Schlosser'25, Anthony Scapaticci'25, Nicholas Suchy'25, and Nico Conarpe-Martinez'25** (advisor/sponsor **Casimer DeCusatis**)



Academic Achievement

AWARD CEREMONY CLASS of 2025

BACCALAUREATE AWARDS **SCHOOL OF COMPUTER SCIENCE AND MATHEMATICS** **FRIDAY MAY 23, 2025**

TRISTAN BARBONI

Award for Excellence in Cybersecurity

This award is given to the graduating senior whose achievements in or out of the classroom demonstrated an unusual depth of knowledge and creativity in cybersecurity and related disciplines.

RACHEL DEAN

Award for Excellence in Mathematics

This award is given to the graduating senior whose achievements in or out of the classroom demonstrated an unusual depth of mathematical knowledge and creativity.

LILLIAN BRIDGET MCPADDEN

The Dr. William Cadden Achievement Award for Excellence in Computer Science

This award was established by the Marist University Software Engineering Research Fund in honor of its founder, Dr. William Cadden, a distinguished IBM computer scientist.

RYAN MUNGER

Merit Award

The Merit Award recognizes a graduating student who has completed 60–89 credits of study at Marist and has attained the highest grade point index in the class.

CHRISTIAN F. SARMIENTO

Award for Excellence in Data Science or Information Technology and Systems

This award is given to the graduating senior whose achievements in or out of the classroom demonstrated an unusual depth of knowledge and creativity in information systems.

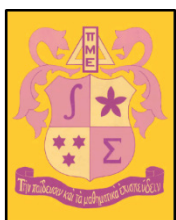
HONORS MEDAL RECIPIENTS

CLASS OF 2025

Adrianna Bordonaro, Information Technology & Systems
Gianna Julio, Computer Science
Ryan Munger, Computer Science
Isabel Pappas, Applied Mathematics
Evan Paul Spillane, Cybersecurity
Nicholas Suchy, Cybersecurity



PI MU EPSILON



Pi Mu Epsilon, the National Honorary Mathematics Society, is an organization whose purpose is the promotion of scholarly activity among mathematics students. Pi Mu Epsilon was founded over one hundred years ago at Syracuse University on May 25, 1914. The Marist University chapter of Pi Mu Epsilon, Designated New York Alpha Pi, is the 346th chapter of Pi Mu epsilon. All Chapters have been installed at institutions that have demonstrated a high level of interest in undergraduate mathematics research. Students were recognized at an induction dinner held March 28, 2025, at the Marist Boathouse.

2025 INDUCTEES

Levi Cartiera
Isabella M Garcia

Sydney E George
Brayden C Kehoe

Dreama L Manganiello

OMICRON SIGMA SIGMA - ORDER OF THE SWORD AND SHIELD

Omicron Sigma Sigma (also known as the Order of the Sword and Shield) is the first and only national honor society devoted to cybersecurity and related disciplines. The mission of the society is to promote scholarship and professional development, enhance ethical standards, and promote critical thinking among security professionals. The society was established in 2010, and currently supports chapters at over 100 institutions nationwide. The core values of the society are excellence, knowledge, ethics, and peace. Our motto is Ex Scientia Pax, which means "out of knowledge comes peace". Cybersecurity majors and minor qualify for the honor society if they have completed at least half of the cybersecurity courses in their program of study with an overall GPA of at least 3.25. Students were recognized at an induction dinner held April 10, 2025, at the Marist Boathouse.



2025 INDUCTEES

Nico Conarpe-Martinez
Christopher Drisdelle
Ryan Eager
Connor Eddy
Chase Evans
Zachary Giardina
Hannah Gidos
Eric Guzman
David Martinez

Lillian McPadden
Maurizio Miglietta
Giuliano Piscitani
Julianna Russo
Anthony Scappaticci
Jackson Schlosser
Evan Spillane
Justin Sterlacci
Nicholas Suchy

Zachary VanDerVelden
Jankarlo Villanueva

MARIST HIGH SCHOOL PROGRAMS

Newburgh Enlarged City School District (NECSD) Smart Scholars (SS) Early College High School (ECHS) program, a grant program funded by the New York State Education Department awarded to the NECSD in partnership with Marist starting in 2018, hosted high school students on campus for 3 weeks during the summer of 2025 for the 7th year of the program.

- 76 Newburgh students from Newburgh Free Academy Main Campus registered in one of 3 summer courses on campus June 30 – July 17, 2025.
- Cohort 5 HS rising seniors: 20 students taking CMPT416 Intro to Cybersecurity taught by Marist School of CSM faculty member Casimer DeCusatis
- Cohort 6 HS rising juniors: 27 students taking CMPT221 Software Development II taught by Marist School of CSM faculty member Brian Gormanly
- Cohort 7 HS rising sophomores: 29 students taking CMPT120 Intro to Programming taught by Marist School of CSM faculty member Cathy Martensen

The first of two grant cycles started in June of 2018, with the first Cohort (Cohort 1) starting in their first course in the program in January of 2019. Since then, the grant was extended to another cycle through August 2027, with a new cohort of 30 students starting the 4-year sequence of courses each January/February. We have been running the program for 7 years, with the 7th Cohort starting February 2025.

Hosting these students included multiple faculty, staff and student workers from Marist and NECSD, including:

- **Cathy Martensen**, Marist Faculty Advisor 2019-2025 and Marist Faculty Instructor CMPT 120 Introduction to Programming, Summer 2019, 2020, 2021, 2022, 2023, 2024 and 2025
- **Brian Gormanly**, Marist Faculty Instructor CMPT 221 Software Development II, Summer 2020, 2021, 2022, 2023, 2024 and 2025
- **Casimer DeCusatis**, Marist Faculty Instructor CMPT 416 Introduction to Cybersecurity, Summer 2021, 2023, 2024 and 2025
- **Dreama Manganiello**, ECHS Student Summer Program Coordinator, Summer 2022, 2023, 2024 and 2025

- **Maya Zutshi**, ECHS Student Assistant Summer Program Coordinator, Summer 2025
- **Emily Ramirez**, Marist Teaching Assistant/Tutor, CMPT 120 Introduction to Programming, Summer 2025
- **Ethan Korkes**, Marist Teaching Assistant/Tutor, CMPT 221 Software Development II, Summer 2025
- **Charlie Samuel**, Marist Teaching Assistant/Tutor, CMPT 416 Introduction to Cybersecurity, Summer 2025

From the first 4 cohorts of students who graduated from the ECHS program in the NECSD, we have 11 students from the Newburgh program who are now matriculated students at Marist. Fall 2022, Cohort 1 had 4 students matriculate at Marist, but 1 student transferred after his first year. There are currently 3 Newburgh students from this cohort still here. (Two of them, if not all three, will graduate in May 2026!). Fall 2023, 6 students from Cohort 2 matriculated at Marist. Fall 2024, 2 students from Cohort 3 matriculated at Marist.

Interested in some additional information about the NECSD SS ECHS program?

- Marist Brochure: <https://www.newburgh-schools.org/files/MaristBrochure%20%283%29.pdf> (Note: the last course in the 4-year sequence was changed to MATH 241 Calculus I)
- NECSD Article at start of program: <https://www.newburghschools.org/nfa-news.php?storynum=910>
- Marist Article October 2022: <https://www.marist.edu/-/echs-newburgh-early-college-ibm>



ALUMNI UPDATES

FEATURED ALUMNUS



Augusto González Bonorino '22, originally from Tucumán, Argentina

Read more about him: <https://www.marist.edu/w/profiles/augusto-gonzalez-bonorino>

“Since graduating Marist in 2022, life has taken me down a series of unexpected but highly profitable paths. The skills I learnt at the university helped me make the most out of each opportunity, particularly those I acquired via independent work and research in NLP with faculty. I started a PhD

in Quantitative Economics and Econometrics at Claremont Graduate University right after graduation. The southern California weather was a nice change from the cold winters in Poughkeepsie. Serendipitously, the start of my PhD coincided with the public launch of ChatGPT. Having worked on earlier versions of generative and semi-autonomous chatbots with Dr. Eitel Lauria, the breakthroughs of the new technology were apparent to me and quickly overtook my research agenda. I wanted to understand the utility of language models, large or small, in economic research. But no one was even thinking about these models at the time, they were discarded as “useless stochastic parrots.”

I found one professor though, Dr. Monica Capra, who did believe in the idea and offered to mentor me. Today we have the fastest growing research lab at the Claremont colleges, EconLLM, and have secured collaborations with Ivy League schools to research avenues related to exploring potential synergies between social science and artificial intelligence (text and voice modalities primarily). If you, your friends or any of your colleagues are interested in this niche, reach out to me. We are looking for students and collaborators outside the Claremont area. During that time, I also met two new best friends. We wrote a book chapter on AI coaching together and we recently started a data science consulting company. Everything was going great. Then, I was informed my funding would not be increased for the second year due to budget constraints. My mentors advised me to transfer out and thus soon after the notice I was preparing (again) for graduate school applications. I taught macroeconomics, statistics, and econometrics at Pomona College during that year and ended up accepting an offer from Arizona State University to complete my PhD in Economics. Life is exponentially better now. What seemed a step back at the time turned out to be a blessing in disguise. We’ll see what this new chapter has prepared for me, but I’ve learnt that staying true to one’s curiosities and maintaining an optimistic mindset eventually pays off. In the age of AI, those who can forge their own paths will have no trouble adapting to rapidly changing markets and Marist University is a great place to figure out what you want it to look like. Who knows, your next breakthrough might be waiting for you near Hancock or the new Dyson building...”

ALUMNI SNAPSHOTS



Mason Nakamura '23 was awarded a prestigious NSF Graduate Research Fellowship in the amount of a \$37,000 annual stipend plus \$16,000 towards the cost of attendance each year for 3 years at the University of Massachusetts Amherst. Mason's project is entitled *Advancing Capabilities of Reinforcement Learning with Human Feedback*. Mason is currently working on his MS/PhD in Computer Science with an expected graduation year of 2028.

Dr. Michael Fowler '09 (Marist Class of 2009 – PhD from Clarkson) is currently Principal Software Engineer at MathWorks (aka the home of MATLAB, the scientific computing software package).

Edison Hauptman '21 is currently a University of Pittsburgh PhD candidate.

Amy Pitts '20 (Class of 2020) is currently a PhD candidate in biostatistics at Columbia University Mailman School of Public Health.

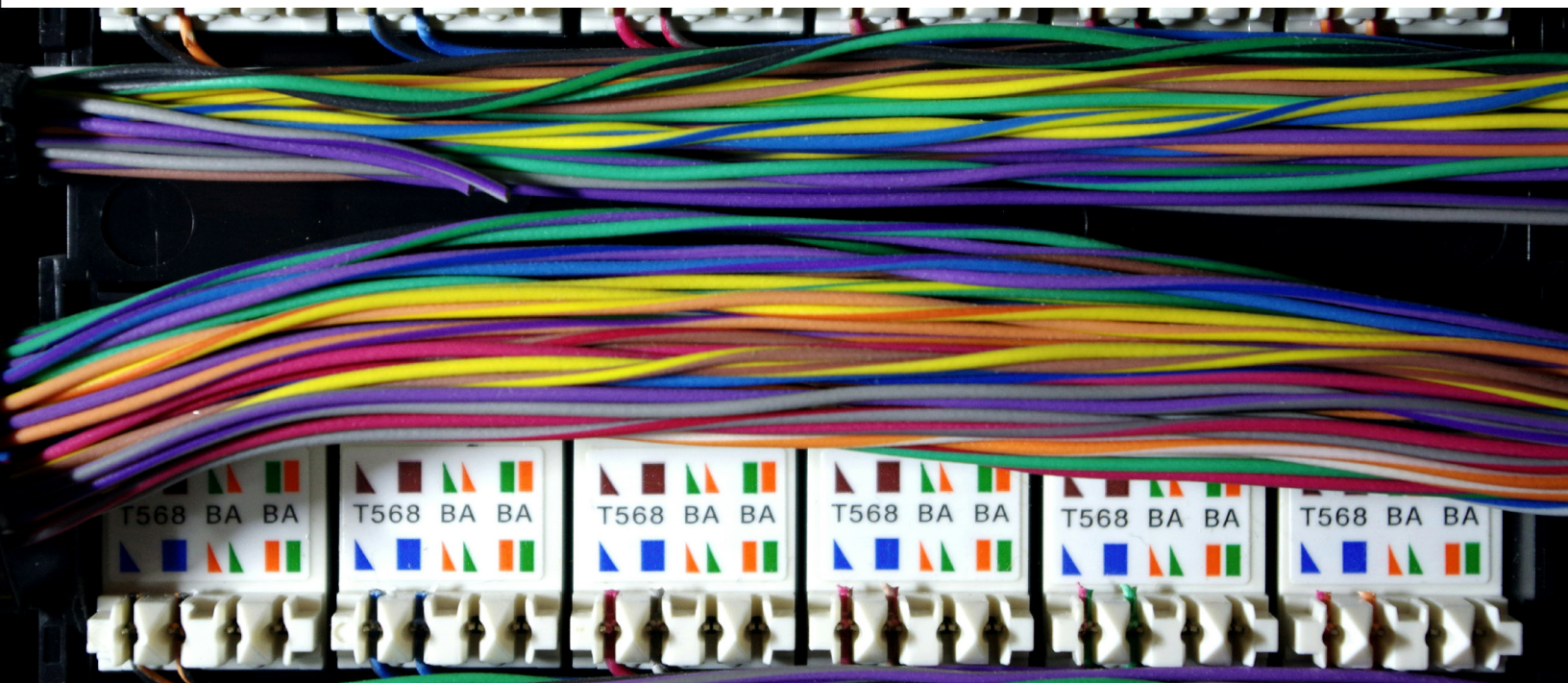
Rachel Hawks '19 earned in spring 2024 a PhD from the School of Mathematics and Statistics at Rochester Institute of Technology! She successfully defended her thesis, "Computational framework for parameter identification in the nearly incompressible linear elasticity system."

Michelle Bartolo '19, successfully defended her PhD dissertation in Spring 2024) in the Biomathematics Program at North Carolina State University! In August she began a job as a postdoctoral research fellow at Harvard Medical School / Mass Eye and Ear in Boston, working on a project that integrates image analysis, retinal blood flow predictions, and genomic data related to glaucoma.

Ryan Mackey '17 graduated in spring of 2024 from the Jacobs School of Medicine and Biomedical Sciences at the University at Buffalo. In July of 2024, Ryan began UB's highly selective three-year residency in internal medicine.

We want to hear from more CSM alumni!

Please email updates to School.CSM@Marist.edu for inclusion in future newsletters!





MISSION OF THE SCHOOL OF COMPUTER SCIENCE AND MATHEMATICS

The School of Computer Science and Mathematics prepares its students to live and work in a technology-driven, rapidly changing world. The School provides broad-based mathematical and technological education within the context of a solid liberal arts foundation. Students receive in-depth instruction in the theoretical underpinnings of their chosen fields, which they can apply through a wide variety of practical experiences. Study in each of the School's undergraduate majors provides students with professional preparation for entry into fields of work associated with the major. Concurrently, students' learning prepares them for advanced study in career-oriented graduate programs.

If you would like to learn how you can support the School of Computer Science and Mathematics and help advance its mission, please contact Allison Barry, Director of Major Gifts, Office of Advancement, at Allison.Barry@marist.edu

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