

# Riya Goyal

Stockton University  
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## EDUCATION

### New Jersey Institute of Technology | Newark, NJ

Sep 2025 - May 2029

PhD in Applied Mathematics

### Stockton University | Galloway, NJ

GPA: 3.997 (Dean's List: Fall 2021 to Spring 2025)

Sep 2021 - May 2025

Bachelor of Science in Mathematics with program distinction (Research with Faculty Member) and Honors distinction

Bachelor of Science in Computer Science with program distinction and Honors distinction

Minors in Business Administration, Computer Information Systems, and Digital Literacy/Multimedia Design

**Relevant Coursework:** Multivariate Calculus, Real Analysis, Partial Differential Equations, Abstract Algebra, Linear Algebra, Probability and Statistics, Complex Analysis, Numerical Analysis, Data Structures and Algorithms, Computer Networking, Web Development, Software Engineering, Artificial Intelligence, Information Assurance.

**Study Abroad:** F-1 student, 10-day Language and Cultural Program at National Taipei University of Education (NTUE), Taiwan.

## SKILLS

**Language Skills:** English (Experienced), Hindi (Expert), Punjabi (Skillful).

**Technical Skills:** *Programming:* Java, Python, JavaScript, HTML, CSS, PHP, R | *Database:* Oracle SQL, MySQL | *Other Tools:* LaTeX, Maple, Git, VMix, OBS, Visible Analyst, MS Office Suite, Canva, WordPress.

## WORK EXPERIENCES

### Stockton University | Galloway, NJ

#### Information Security Analyst

May 2025 - Aug 2025

- Assist in security investigations by monitoring and analyzing logs across multiple SIEM platforms, including Splunk, while gaining expertise in enterprise systems like Banner, Odyssey, and Argos to assess data flow, user access, and security risks.
- Support identity and access management initiatives leveraging Duo Security for MFA, while managing security documentation and workflows using Jira and Confluence to ensure compliance and operational efficiency.

#### Resident Assistant

Aug 2022 - Aug 2025

- Assisted in the development and implementation of campus-wide programs to promote student engagement and success.
- Selected as a **Lead Resident Assistant in Sep 2024** and help oversee 16 resident assistants.
- Participated in regular training sessions to stay updated on campus policies and procedures.

#### EOF Math Tutor

June 2023 - Aug 2023, June 2024 - Aug 2024, June 2025 - Aug 2025

- Provided individualized math tutoring, enhancing students' understanding and performance.
- Organized workshops and study groups to support skill development beyond tutoring.

#### Mathematics and Computer Science Tutor

Sep 2022 - May 2025

- Developed tutoring strategies to enhance students' understanding of mathematical and computer science concepts.
- Provided one-on-one tutoring to students in mathematics and computer science, providing guidance and support.

#### Admissions Ambassador

Oct 2021 - May 2025

- Provided personalized campus tour experiences for prospective students, tailoring the tour to highlight specific programs.
- Assisted with daily office tasks in the Admissions Office and utilized technical skills to support the office.
- Selected as a **Lead Admissions Ambassador in May 2023** and trained and oversaw 30 ambassadors.
- Supported Peer Mentoring for prospective students as one of two International Student Ambassadors.

#### Esports Intern / Broadcast Engineer

Sep 2023 - Dec 2023

- Assisted in executing esports events to promote the university's esports program and attract new students.
- Provided tech support and streamed games online and assisted in large event gatherings for the program.

#### Interviewer at Polling Institute

Sep 2021 - Apr 2022

- Maintained a high level of professionalism and objectivity during interviews to ensure accurate and unbiased data collection and conducted in-depth research on polling trends to stay updated on the latest industry knowledge.

#### Teaching Assistant / Grader for Discrete Mathematics

Sep 2021 - Apr 2022

- Assisted in teaching Discrete Mathematics by grading assignments, providing feedback, and supporting students.
- Collaborated with faculty to ensure fair grading while identifying common areas where students needed additional support.

### NJ Governor STEM Scholars Program

Sep 2024 - May 2025

#### Team Lead and Research Scholar

- Selected as Team Lead for the highly competitive Governor's STEM Scholars program (10% acceptance rate).
- Lead a team of 6 scholars on a STEM research project addressing community issues.
- Engaged with New Jersey's STEM leaders and exploring the state's STEM economy.

### inMorphis Services Private Limited (Remote)

#### Associate Software Engineer

July 2021- May 2023

- Customized and configured ServiceNow applications to meet project requirements, conducted testing activities, including unit and integration testing, to ensure the quality and reliability of developed solutions.
- Worked closely with cross-functional teams, including developers, system administrators, and stakeholders, to ensure project success, identified and resolved issues within the platform by providing timely resolutions.

## PROFESSIONAL DEVELOPMENT

Undergraduate Mathematics Conference at Moravian University (*Feb 16, 2025, Feb 17, 2024; Feb 18, 2023*); Joint Math Meeting (*Jan 8-11, 2025*); HackHarvard (*Oct 11-13, 2024*); GROW Conference at Columbia University (*Sep 27-29, 2024*); CASE Conference (*June 23-25, 2024*); Inclusive Leadership Conference at Stockton University (*Apr 5, 2024*); Garden State Undergraduate Mathematics Conference at Kean University (*Apr 1, 2023*).

## RESEARCH EXPERIENCES

### Undergraduate Researcher at Stockton University

*Feb 2022 - Present*

- Conduct research with Professor Bradley Forrest on graph theory, exploring the mathematical properties of the "Lights Out" game on random graphs. Implement algorithms to simulate various graph configurations, using advanced techniques in linear algebra and combinatorics. Working on the manuscript of the article now.

### Researcher in Health Analytics Research Team

*Feb 2022 - Present*

- Key member of the research team focused on advancing medical and health informatics by developing data-driven methodologies and AI-based tools to bridge the communication gap between physicians and patients. Co-authored multiple publications, contributing to research on the use of artificial intelligence in Alzheimer's disease and mental health for aging populations, as well as other health informatics topics.

### Council for Advancement and Support of Education (CASE) Intern

*June 2024 - Aug 2024*

- Conducted research at Scripps College on leveraging Artificial Intelligence tools for advancement, focusing on philanthropy. Performed peer research on 30 institutions to analyze strategies and objectives for philanthropy efforts.

## PUBLICATIONS

- Wei, D. H., **Goyal, R.**, Prakash, S., & Zhang, R. (2023). Does COVID-19 affect mental health and substance use in young adults? *Journal of education and health promotion*, 12, 108. [https://doi.org/10.4103/jehp.jehp\\_1167\\_22](https://doi.org/10.4103/jehp.jehp_1167_22).
- Wei, D., Elmasri, J., Hernandez, B., **Goyal, R.**, & Burdick, D. (2024). Exploring the landscape of Generative AI and Large Language models in Alzheimer and Dementia's research. *Innovation in Aging*, 8 (Suppl 1), 922. Presented at the Gerontological Society of America (GSA) Annual Scientific Meeting, Seattle, WA. <https://doi.org/10.1093/geroni/igae098.2976>.
- Wei, D., Elmasri, J., **Goyal, R.**, Hernandez, B., & Burdick, D. (2024, November 9–13). Google Gemini-assisted scoping review of generative AI and large language models in ADRD research. Presented at American Medical Informatics Association (AMIA) Annual Symposium, San Francisco, CA.

## CERTIFICATIONS

Tokyo Delta: Certified System Administrator, ServiceNow (*Dec 2022*); HackerRank Certification: SQL (*January 20, 2024*); Micro Certification: Welcome to ServiceNow (*March 2023*); ChatGPT for Developers by UpGrad (*Aug 2024*); Elements of AI by University of Helsinki (*Aug 2024*); Business Intelligence using Power BI by Skill Nation (*July 2024*); Career Essentials in Generative AI by Microsoft and LinkedIn (*July 2024*); Data Science Mathematics by Great Learning (*July 2024*); Certified Lean Six Sigma AI Yellow Belt (*July 2024*).

## ASSOCIATIONS & MEMBERSHIPS

Pi Mu Epsilon: National Maths Honors Society; NJ Governor STEM Scholars Program; Foundations of Computational Mathematics (FoCM); Advancing Indigenous People in STEM (AISES); Society of Actuaries (SOA); Alpha Lambda Delta; Circle K International: Society of Distinguished Collegians; Golden Key: National Honors Society; Gerontological Society of America (GSA); Stockton Women in Mathematics (SWIM); Stockton Math Club; Stockton Computer Society; Stockton Student Alumni Association (SAA); Indian Student Association (ISA); Residential Hall Association (RHA).

## LEADERSHIP POSITIONS

OurFa2M2 Conference: Organizer (*June 2025-Present*); Student Senator: Academic Affairs Committee (*May 2024-May 2025*), Diversity and Inclusion Committee (*Sep 2023-May 2024*); Residential Scholar (*Sep 2023-May 2025*); Stockton International Student Organization: Founding President (*Oct 2022-May 2025*); Stockton Honors College: President (*Jan 2023-May 2025*), Peer Mentor (*Sep 2022-May 2025*), Director of Fundraising and Finances (*Jan 2022-Dec 2022*); Student Success Scholars Program: Peer Mentor (*Sep 2022-May 2025*), Group Study Leader (*Sep 2023-May 2025*); School of Business: Student Advisory Board Member (*Oct 2021- May 2025*); Alpha Lambda Delta National Honors Society: President (*June 2023- May 2025*), Vice President (*Sep 2022-May 2023*); Stockton Computer Society: Vice President (*Sep 2022-May 2023*); Campus Hearing Board (*Oct 2021-May 2022*).

## COMMUNITY ENGAGEMENT

Circle K International: Service Organization (*Sep 2021-Present*); Stockton University Honors College (*Sep 2021- May 2025*); FreeRice (*May 2022- May 2025*); Encorps Math Tutor Volunteer (*May 2024-Present*); Stockton Global Engagement Mentor (GEM) (*June 2024- May 2025*); SchoolHouse Math Tutor Volunteer (*Sep 2024-Present*); National Integration Forum of Artists and Activities (*2019-2021*); Akhil Bhartiya Aggarwal Samelan (Women Wing) (*2017-2021*).

## AWARDS

Kiwanis Children's Fund Scholarship (CKI) (2025).  
ALD Graduate Fellowship (2025).  
Stockton Development Awards: Engagement Award (2023), Spirit Award (2024), L.E.A.D. Award; Student Leader of the Year Award (2025).  
Stockton Community Engagement Student Award (2025).  
Stockton Board of Trustees Fellowship Recipient (2024).  
Circle K Carter Family Scholarship Recipient (2024).  
Top 100 Influential Indian Award by Hypedge Media (2023).  
Jo Anne J Trow Undergraduate Scholarship Recipient (2023).

Young Achievers Award by India Proud Book (2023).  
Young Motivator and Influencer Award (2023).  
National Education and Student Excellence (2023).  
Selected for Asia Excellence Award by MTTV (2023).  
Pi Mu Epsilon Superior Achievement in Math (April 2023).  
International Youth Math Challenge (IYMC):  
US Topper (2021), Gold Honor (2022),  
Silver Honor (2023).  
Sipra Pal Award for Perseverance in Physics (2022).  
Dean's List (Fall 2021- Spring 2025).