Rohan Devraj

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EDUCATION

Georgia Institute of Technology | Atlanta, GA

Bachelor of Science in Industrial & Systems Engineering, Minor in Computer Science

Expected Dec. 2026

GPA: 3.87

Experience

Georgia Tech Space Systems Optimization Group

Aug. 2024 – present

 $Undergraduate\ Researcher$

Atlanta, GA

• Developing space logistics models, optimizing on-orbit manufacturing, and designing Mars rover surface routing strategies, advised by Dr. Koki Ho.

UnitedHealth Group (Optum) at Carnegie Mellon Dept. of Statistics & Data Science Jun. 2024 – Jul. 2024

Data Science Research Intern | stat.cmu.edu/cmsac/sure/2024/showcase/

Pittsburgh, PA

- Selected as one of 18 individuals in the nation to participate in competitive research program on statistical and data science methodologies involving data visualization, statistical models, and machine learning algorithms for real-world healthcare challenges (CMU-Optum Bridges to Healthcare Data Science SURE 2024)
- Developed statistical learning models such as lasso regression and decision trees in R to uncover relationships between juvenile healthcare outcomes and adult health-related practices on county-level data across the United States
- Conducted 7+ analyses of maternal healthcare disparities and used k-means clustering to identify distinct groups in healthcare access using over 9,800 birth records
- Delivered presentation to faculty at Carnegie Mellon University and leaders at UnitedHealth Group

Georgia Tech Autonomous & Connected Transportation Laboratory

Jan. 2024 – May. 2024

Atlanta, GA

Undergraduate Research Assistant

- Used optimization tools like Gurobi (and other related Python libraries) to develop sustainable travel solutions
- Formulated a mathematical model for accessibility and equity, ensuring that jobs and education could be accessed equitably by travelers originating at different zones
- Collaborated with other students and cross-functional teams to develop multi-objective traffic assignments and network modeling solutions

Washington University in St. Louis

Jun. 2022 – Aug. 2022

Research Intern

St. Louis, MO

- Conducted lab-based research in earth science at WashU as part of the selective STARS program cohort.
- Utilized Python, Excel, X-ray diffractometer (XRD) techniques, and HPLC (high performance liquid chromatography) techniques to process and analyze experimental data
- Wrote a scientific research paper on the role of minerals on the origins of life and presented findings to a group of research advisors at WashU

Clubs & Organizations

180 Degrees Consulting | Junior Consultant

2024 - present

- Collaboratively develop and implement an outreach strategy to help the non-profit organization MedShare to provide support to Charitable Health Clinics (CHCs) of the Fulton and Dekalb counties of Georgia
- · Conduct in-depth data analysis of MedShare's operations and communicate with directors at CHCs and other non-profits
- Generate detailed reports and presentations to communicate project achievements and key recommendations to MedShare

Georgia Tech Venture Capital Club | Research Analyst

2023 - present

• Conduct research on the cybersecurity sector and present to venture capitalists in the Atlanta area

The Tower Undergraduate Research Journal | Editorial Assistant

2023 - present

- Reviewed and edited research articles submitted to the journal
- Developed innovative ideas such as a speaker series to enhance the journal's impact and reach by 10%

Georgia Tech Grand Challenges | Project Lead

2023 - 2024

- Received competitive funding of \$250 to develop models and proposed solutions for vehicular navigation in dangerous environments
- Developed leadership, team-building, creative problem-solving, and analytical skills as part of a selective program for Georgia Tech students

Skills & Relevant Coursework

Technical: Python (Pandas, NumPy, Pyomo - in progress), R (ggplot, dplyr), Excel, Java, SQL (beginner), Quarto Coursework: Python, Probability, Statistics, Java, Linear Algebra, Discrete Math, Multivariable Calculus, Physics, Chemistry Languages: English (fluent), French (conversational), Tamil (conversational)