# Rohan Devraj

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## Education

**Georgia Institute of Technology | Atlanta, GA** *Expected May 2026*
*Bachelor of Science in Industrial & Systems Engineering, Minor in Computer Science* *GPA: 3.87*

## Experience

**Georgia Tech Space Systems Optimization Group** Aug. 2024 – present
*Undergraduate Researcher* *Atlanta, GA*

- Focusing on space logistics modeling, optimization, and Mars rover surface routing, advised by Dr. Koki Ho
- Preparing to begin a personal research paper under guidance from Prof. Ho and graduate students

**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 with CMU and UnitedHealth Group 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 2024)
- Developed models using statistical learning methods such as lasso regression and decision trees with cross-validation in R on healthcare outcomes across the United States to uncover relationships between juvenile healthcare outcomes and adult health-related practices on county-level data
- 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
*Undergraduate Research Assistant* *Atlanta, GA*

- Used mathematical modeling in Python and optimization tools like Gurobi to develop sustainable travel solutions
- Formulated mathematical expressions to model accessibility equity, ensuring that opportunities such as jobs and education can be accessed equitably by travelers originating at different zones
- Gained insights into multi-objective traffic assignments and network modeling and collaboratively worked to form effective optimization solutions

**Washington University in St. Louis** Jun. 2022 – Aug. 2022
*Research Intern* *St. Louis, MO*

- Conducted lab-based research on 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 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
- Contributed 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 funding 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)