Rohan Devraj

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Education

Georgia Institute of Technology | Atlanta, GA *Expected Graduation: December 2026*

B.S. in Industrial & Systems Engineering, Minor in Computer Science *GPA: 3.91*

- *Specializations*: Operations Research, Artifical Intelligence
- *Relevant Coursework*: Probability, Statistics, Data Input & Manipulation, Discrete Math, Data Structures & Algorithms, Stochastic Systems, Database Systems, Engineering Optimization

Experience

Georgia Institute of Technology | Space Systems Optimization Group Aug. 2024 – present

Undergraduate Researcher *Atlanta, GA*

- Developed a Mixed-Integer Linear Programming (MILP) model in Python using Gurobi to optimize Mars rover routes, minimizing energy use based on elevation changes and gravitational force costs (advised by Dr. Koki Ho)
- Investigating stochastic approaches for rover routing, shifting from a deterministic formulation to adaptive planning that updates based on new information with machine learning

Optum, Carnegie Mellon Department of Statistics & Data Science Jun. 2024 – Aug. 2024

Data Science Intern | stat.cmu.edu/cmsac/sure/2024/showcase/ *Pittsburgh, PA*

- Selected as one of 18 individuals in the nation for competitive research program on statistical and data science methodologies involving data visualization and machine learning algorithms for real-world healthcare challenges (CMU-Optum Bridges to Healthcare Data Science SURE 2024)
- Developed regression and machine learning models (linear, lasso, ridge, decision trees) to analyze the impact of adult health behaviors on child mortality and low birthweight at the county level, implementing 10-fold cross-validation for model selection in R
- Conducted 10+ analyses on maternal healthcare disparities and leveraged k-means clustering to identify distinct demographic and behavioral risk groups

Georgia Tech Autonomous & Connected Transportation Laboratory Jan. 2024 – May. 2024

Undergraduate Research Assistant *Atlanta, GA*

- Developed a multi-objective optimization model in Python with Pyomo and Gurobi to improve transportation accessibility, safety, and equity across diverse zones
- Formulated and implemented accessibility and safety equity models, focusing on equitable access to jobs, education, and resources
- Integrated data-driven safety measures by analyzing accident likelihood and severity, optimizing safety strategies across travel zones

Leadership & Organizations

Georgia Tech Alumni Association Angel Network Aug. 2024 – present

Associate | gtangelnetwork.com *Atlanta, GA*

- Serve as one of 10 student associates in a highly selective, student-run organization supporting Georgia Tech-affiliated startups
- Lead meetings with founders and collaborate with investors to craft detailed investment memos, analyzing product, market strategy, financials, and growth potential
- Sourced over 20+ startups, evaluating high-potential startups for the angel investment network

180 Degrees Consulting Georgia Tech Jan. 2024 – present

Consultant *Atlanta, GA*

- Collaboratively developed and implemented a strategy to help the non-profit organization MedShare to provide support to Charitable Health Clinics (CHCs) of the Fulton and Dekalb counties of Georgia
- Conducted in-depth data analysis of MedShare's operations and communicated with 10+ directors at CHCs and other non-profits

Skills

Programming: Python, SQL, Java, R, Excel

Libraries & Modeling: Pandas, NumPy, ggplot2, dplyr, Gurobi, Pyomo, GurobiPy