Akash Dubey

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As a passionate Computer Science, Mathematics, and Quantitative Economics student at the Rutgers University Honors College, I am eager to apply my strong foundation in data analysis, programming, and problem-solving to real-world data science challenges. My experience in statistical analysis, machine learning, and project management equips me to contribute effectively to data-driven projects.

Education

School of Arts and Science, Rutgers University Honors College, New Brunswick, NJ Graduate Anticipated (Sept. 2024 - May 2027) GPA: 3.95 • Computer Science and Mathematics

Experience

Rutgers Economics Lab Research Director, formerly Team Lead. September 2024 - Present

- In charge of sourcing organizations, advising research, and creating scope of work for three research teams
- Led a team of 5 experienced student researchers to create a report for the NJDCA examining the impact of their spending
- Analyzed NJ Clean Energy Programs, EV incentives
- Synthesized 20+ years of historical data from various sources to extract patterns and create projections of economic funding variables
- Researched and created visualizations for the Rutgers submission to the Federal Reserve's College FED Challenge

Founding Software Engineer for Samaritan Scout, Cranford, NJ, May 2023 - Aug. 2024, May 2025 - Aug. 2025

- Scraped 100k non-profit sites and extracted info with LLM structured output to create an AI-powered search engine for over 35,000 volunteer opportunities across America
- Created robust pre- and post-processing to improve ETL process to filter sites and address hallucinations cost-effectively with semantic search and checks
- Worked on front and back-end features for search experience with React, TypeScript, and Postgres

FRC Robotics Team Programming Captain, Academy for Information Technology, Sept. 2022 - June 2024

- Researched and implemented 4 camera computer vision system, robot simulation, and pathfinding to improve autonomous sensing and capabilities
- Trained, managed, and led a programming team of 30+ members to create high-level robot code in Java, web apps for match strategy, and Python programming for misc. tasks
- Awarded <u>Autonomous</u> and Dean's List Semifinalist Awards

Coursework

Current: Systems Programming, Algorithms, Tensor Networks

Completed: Data Structures, Statistics I, Honors Calculus III & IV, Intro to Math Reasoning, Mathematical Theory of Probability, Computer Architecture, Econometrics

Organizations

Quantitative Finance Club, Road to Silicon Valley Program, Rutgers Directed Research Reading Program (Symmetric Functions). ESL Instructor.

Demonstrated Skills

American Statistical Association Fall Data Challenge 2023 (StackOverflow Developer Survey)

Placed Top 3 Nationally

Data Analysis, Business Planning, Pandas, Seaborn, Power Bi, Project Management

Road to Silicon V/Alley & Rutgers Entrepreneurial Society

TechStart Business Pitchathon and Shark Tank 2nd Place and 2nd Place Business Planning, Pitch Presentation, MVP Creation

Other Awards: 5th place in 8090 Al's Top Coder Challenge, voted Best Honors College Final Plenary Presentation (improving the Rutgers bus system through data), FBLA Local Business Search Website (State Finalist) 2024

<u>Certifications</u>

NVIDIA Accelerated Computing in Modern CUDA C++, Oracle Exam 1Z0-811 Java and Exam 1Z0-006 Database Foundations, Microsoft Word, PowerPoint, Excel, Excel Expert, and Access 2019

Projects

* Available on GitHub

Scarlet Sync - Modern Rutgers Class Scheduling Startup, Rutgers <u>Bus Data Analysis</u>, <u>Economic Series</u> and <u>Feature Plotter</u>, <u>Calculus Problem Generator</u>, RAG <u>Chat App</u>, <u>A*</u> and <u>Pure Pursuit</u> Visualizers, <u>Arduino and Raspberry Pi Gadgets</u>, and 3D <u>Racing</u> Game

Languages: Python, Java, C++, C, SQL, TypeScript, JavaScript, Bash, Kotlin, Git