# **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 2028) 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 Al-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, Micro/Macro Economics, Statistics I, Linear Algebra, 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

### **Certifications**

Oracle Exam <u>170-811</u> Java Foundations and Exam <u>170-006</u> 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> <u>Game</u>

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