Rakesh Krishnan

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Objective: Harness the power of data and analytics to drive solutions to societal challenges and climate change.

EDUCATION

University of Michigan, Ann Arbor **Graduation May, 2026**

B.S. in Data Science, Environment (Double Major), Entrepreneurship Minor, Undergraduate Honors Program

- 3.81/4.0 Cumulative GPA, 119 total credits
- **Sophomore Honors Award:** Awarded for outstanding achievement and engagement in the Honors Program.
- **William J. Branstorm Prize:** Awarded to freshmen who's grades rank in the upper five percent of their class.
- **James B. Angell Scholar Award:** Awarded for 2+ consecutive semesters of earning only As in classes.
- **Coursework:** Machine Learning (EECS 445) Calculus III (MATH 215), Web Systems (EECS 485), Data Structures & Algorithms (EECS 281), Probability & Statistics (STATS 412), Economics (ECON 101), Database Systems (EECS 484), Practical Data Science (EECS 398), Linear Algebra (Math 214)

WORK EXPERIENCE

University of Michigan, Computer Science Department **August 2024– Present**

Teaching Assistant *Ann Arbor, MI*

- Mastered challenging programming and C++ content, and 1 of 10 people selected from over 350 applicants.
- Taught a class of computer science students coding concepts in weekly 2 hour lab sections and office hours.
- Innovated upon current teaching methods to help students retain information and actively enjoy learning.

Department of Defense (USUHS) **June 2024– August 2024**

Data Science Intern *Bethesda, MD*

- Managed and developed databases to optimize medical supply acquisition, resulting in thousands of dollars in savings, streamlined processes, and the top-quality instruction for over 500 medical students every year.
- Analyzed environmental impacts of military medicine practices and proposed sustainable improvements.
- Facilitated over 50 hours of real-life training activities for medical students.

Michigan Data Science Team **January 2024– Present**

Project Team Member *Ann Arbor, MI*

- Constructed an adaptive artificial intelligence model capable of playing the game "codenames" with over 85% accuracy in generating relevant clues through using python, the gensim library, and a word2vec model.
- Transformed complex data into compelling visuals using the power of the pandas and numpy python libraries.
- Mastered the use of linux, shell scripting, virtual environments, and git to streamline project development.

BLUElab Metro **September 2022 – Present**

Team Member *Ann Arbor, MI*

- Developed equitable solutions to promote full electrification of over 800 houses, benefiting 3,000+ residents.
- Participated in skill-building workshops, including Python, machine learning, data visualization and leadership.
- Engineered a solar-powered gazebo with lights and outlets to encourage green energy use.

Projects

- **InterviewerAI:** Leveraged Google Gemini 1.5 API in sync with a backend flask server and frontend react.js scripts to create an interactive interview app that provides tailored feedback on speech and facial expressions.
- **Recipes:** Explored a dataset of recipes and created an optimized Ridge regression predictor for total calories.
- **Metro Solver:** Built a connected database of the current metro stops and used Dijkstra's algorithm to find the shortest path between any two desired metro stations on the map, and then provide organized directions.
- **Insta485:** Engineered a usable model of Instagram where you can login, post, follow, and view others' content.
- **Classifier:** Trained a Naive Bayes Classifier that could categorize forum posts with about 88% accuracy.
- **Bank:** Built the internal structure of a bank, able to facilitate transactions, track fraud, and store user history.

SKILLS, AWARDS, & INTERESTS

- **Skills:** C++, Python, React, JavaScript, R, Shell Script, HTML/CSS, SQL, MongoDB, AWS, Hindi, Git
- **Awards:** Certificate of Meritorious Service, NIH Career Development Certificate, Federal Asian Pacific American Council (FAPAC) Best Community Project Award, AP Scholar with Distinction
- **Interests:** Web Development, Machine Learning, Social Justice, Mystery Novels, Media Production, Psychology