Rakesh Krishnan

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

EDUCATION

University of Michigan, Ann Arbor   **Graduation May, 2025**

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

- 3.79/4.0 Cumulative GPA, 84 total credits, 101/120 credits by May 2024, 34 on ACT
- <u>William J. Branstorm Prize Recipient</u>: Awarded to freshmen who rank in the upper five percent of their class
- <u>James B. Angell Scholar Award:</u> Awarded to me for my two consecutive semesters of getting only As in classes
- <u>Past Classes:</u> Programming & Data Structures (EECS 280), Calculus III (MATH 215), Economics (ECON 101), Data Structures & Algorithms (EECS 281) , CS Pragmatics (EECS 201), Probability & Statistics (STATS 412)
- <u>Current Classes:</u> Linear Algebra (MATH 214), Web Systems (EECS 485), Statistical Computing (DATASCI 306)

WORK EXPERIENCE

Michigan Data Science Team   **January 2024– Present**
Project Team Member   *Ann Arbor, MI*

- Constructed and implemented an adaptive artificial intelligence model capable of playing the game "codenames" by generating accurate and relevant clues by 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 and executed equitable solutions to engage the community to achieve full electrification of over 800 houses in Bryant, Ann Arbor while minimizing gentrification, benefitting over 3,000 local residents.
- Engaged in skill building workshops, including project planning, python, C++, and leadership workshops
- Collaborated with community leaders and A2Zero to build greater support for the electrifying project.

Montgomery County Green New Deal   **July 2021 – June 2023**
Intern, Activist   *Rockville, MD*

- Organized multiple climate protests of hundreds of people and eloquently represented the internship program for the media interviewers of local news sites, magazines, and TV channels: [Article 1](#), [Article 2](#)
- Created a promo video and built relationships that brought in over $3,000 in donor funding for the internship.
- Gave a passionate five minute long speech about the intersectionality of climate change for hundreds of people, including Montgomery County Executives and Board Members, at a major University of Maryland event.

Projects

- **NBA Team Creator:** Personal project written in C++ involving user interaction. The user drafts a team of NBA players from a vast pool and competes against an optimized, but fair computer generated team.
- **Metro Solver:** Personal project written in C++ where I 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.
- **Insta485:** Engineered a usable model of Instagram where you can login, post, follow, and view others' content.
- **Classifier:** Used machine learning and natural language processing with over 1,500 data sets from previous semesters to train a Naive Bayes Classifier that could categorize forum posts with about 88% accuracy.
- **3D Maze:** Developed and implemented an optimized algorithm that solves 3D mazes of 20 million cubic units
- **Euchre:** Coded a simulation of a popular Michigan card game, and then created an AI that could also play it.
- **Zoo:** Developed and implemented fast and optimal algorithms to solve the Travelling Salesman problem.
- **Bank:** Built the internal structure of a bank, able to facilitate transactions, track fraud, and store user history.

SKILLS, AWARDS, & INTERESTS

- **Skills:** C++, Hindi, Git, Python, Makefile, Shell Script, R, HTML/CSS, React, SQL, Fast Learner
- **Awards:** Certificate of Meritorious Service, NIH Career Development Certificate, Federal Asian Pacific American Council (FAPAC) Best Community Project Award
- **Interests:** Web Development, Social Justice, Mystery Novels, Media Production, Fitness, Psychology