# Rakesh Krishnan

raki@umich.edu ❖ (301)-979-5374 ❖ LinkedIn ❖ GitHub

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

- 3.92/4.0 Cumulative GPA, 68 total credits, 100/120 credits by May 2024, 34 on ACT
- William I. Branstorm Prize Recipient: Awarded to freshmen who rank in the upper five percent of their class
- Past Classes: 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**

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 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: <a href="Article 1">Article 2</a>
- Created a video that brought in over \$2,000 in funding for the internship from people across the United States, and built relationships that have amassed \$1000s of dollars more in new donor funding.
- 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.

Bethesda Green June 2021 – May 2022

Intern, Environmental Leader

Bethesda, MD

- Managed and coordinated Bethesda's Teen Science Cafe Program by connecting with professionals, drawing in dozens of participants, interviewing prospective leadership, and setting the program up for continued growth.
- Lead in outreach efforts and created social media content covering the importance of renewable energy sources.
- Produced a fun, informative video series on renewable energy generation: Official YouTube playlist

## **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.
- 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
- **Zombies:** Created an automated zombie defense game, involving the use of complex data structures.
- 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, Makefile, Shell Script, R, Python, SQL, HTML/CSS, Fast Learner, Arabic
- 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