# 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, 2026

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
- William I. Branstorm Prize Recipient: Awarded to freshmen who rank in the upper five percent of their class
- <u>James B. Angell Scholar Award:</u> Awarded for my two consecutive semesters of earning only As in classes
- Past Classes: Calculus III (MATH 215), Web Systems (EECS 485), Data Structures & Algorithms (EECS 281)
  Probability & Statistics (STATS 412), Economics (ECON 101), 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

- Orchestrated 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**

- 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.
- **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.
- **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.
- Weather: Developed an innovative weather app using React with fun features and buttons to engage the user.
- 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.
- Euchre: Coded a simulation of a popular Michigan card game, and then created an AI that could also play it.
- Bank: Built the internal structure of a bank, able to facilitate transactions, track fraud, and store user history.

#### SKILLS, AWARDS, & INTERESTS

- Skills: C++, Git, Python, React, JavaScript, R, Shell Script, HTML/CSS, SQL, AWS, Makefile, Hindi, Adaptable
- 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, Social Justice, Mystery Novels, Media Production, Fitness, Psychology