Raymond Zou

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Education

University of Maryland, College Park (Expected May 2022)
B.S. Computer Science and Mathematics
- Relevant Coursework: Data Structures, Algorithms, Data Science, Object Oriented Prog (Java), Discrete Structures, C++ Prog, Multivariable Calculus, Linear Algebra, Differential Equations, Probability Theory, Applied Probability
- Gemstone Honors Program, an interdisciplinary undergraduate research program

Languages and Tools

Java, Python, Go, Ruby, JavaScript, C, C++, SQL, HTML/CSS
Node.JS, Git, MATLAB

Experience

Amazon | Software Development Engineer Intern (Incoming) | Seattle, WA   **May - Aug. 2020**
- Incoming SDE Intern at Amazon for Summer 2020

FedData | Software Development Intern | Columbia, MD   **June - Aug. 2019**
- Conceptualized and built out a full stack web application tool used to simplify the task of performing cybersecurity due diligence for company acquisitions, mergers, and consultation
- Designed a relational database schema, implemented CRUD functionality, developed the core logic of the application, and multiple scoring algorithms for cybersecurity reports

(Go, JavaScript, SQLite, Bootstrap, HTML/CSS, Git)

Institute of Bioscience and Biotech Research | Research Assistant | Rockville, MD   **June - Aug. 2017**
- Responsible for routine maintenance and performed protocols such as DNA extraction, DNA sequence analysis using Chromaseq software, ELISA, and polyacrylamide gel electrophoresis
- Contributed to a project developing HIV-1 broadly neutralizing antibodies

Activities

Bitcamp Hackathon | Organizer | College Park, MD   **Nov. 2019 - Present**
- University of Maryland's premier student-organized 36 hr. hackathon hosting over 1,500 hackers and volunteers
- Recruited over 200 volunteers and mentors, organized multiple workshops, and delegated tasks for volunteers

MIND.ai | Research Assistant | College Park, MD   **May 2019 - Present**
- A research project in the Gemstone Honors Program that focuses on incorporating machine learning techniques to the improvement of analyzing mental illnesses using various brain scans and epigenetic data
- Leading the technical team which is training a machine learning model to aid in the detection of Alzheimer's disease using fMRI scans, and generating saliency maps to identify biomarkers and improve interpretability

REX Robotics | President | Timonium, MD   **June 2017 - May 2018**
- Raised over $4,000 in funds through hosting local robotics events and securing grants and sponsorships from local companies
- Led the team to a Maryland State Championship title which qualified us for the VEX World Championships and US Nationals and spearheaded the development of a new FRC robotics program

Projects

Macro
A mobile app that identifies food in a picture and displays its nutritional info to track users' daily caloric and macronutrient intake. (React Native, Google Cloud Vision API, JavaScript, Firebase, USDA food composition database)

Jeopardy!
A web app that allows users to search and query through all aired Jeopardy questions based on trivia categories and air dates. Capital One 2020 Software Engineering Summit Winner. (JavaScript, HTML/CSS, jService API, Fetch API)

Lane Line Detection
A program that can identify road lane lines in an image or video applying basic concepts of computer vision: Gaussian blur, Canny edge detection, and Hough transform. (Python, OpenCV, NumPy, Matplotlib)