

Raymond Zou

(US Citizen)



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Education

University of Maryland

B.S. Computer Science and Mathematics, GPA: 3.4

College Park, MD

Aug. 2018 - May 2022

- **Gemstone Honors Program:** a selective 4-year undergraduate research program in the Honors College
- **Relevant Coursework:** Advanced Algorithms, Advanced Data Structures, Organization of Prog. Languages, Data Science, Probability Theory, Applied Probability, Linear Algebra, Multivar. Calculus

Skills

- **Languages:** Java, Python, JavaScript, Ruby, Go, C++, SQL, HTML/CSS, MATLAB
- **Technologies:** Git, AWS (DynamoDB, EC2, SNS, etc.), NumPy, Pandas, Node.js, Flask, Fetch

Experience

Amazon

Software Engineer Intern

Seattle, WA

June 2020 - Aug. 2020

- Developed and deployed Hazmat label validating software feature preventing over 2.9 million packages from shipping without federally required labels per year in Amazon Fulfillment Centers
- Leveraged internal API's to refactor a diagnostic dashboard for AutoSLAM labeling machines
- Fixed package processing software bug that saves \$4.3 million per year in concession costs
- Integrated AWS SNS messaging into back-end microservice interactions to aggregate defect codes for streamlined problem source identification

FedData

Software Engineer Intern

Columbia, MD

June 2019 - Aug. 2019

- Designed and developed internal research tool using Hexagonal architecture to simplify evaluating cyber-security due diligence for company consulting and risk-assessment
- Implemented back-end logic and RESTful API for the application using Go, JavaScript, and SQLite
- Automated data processing tasks for cyber-security and data analysts
- Developed grading/scoring algorithm to assess security protocols

Activities

MIND.ai Research Group

Research Assistant

College Park, MD

May 2019 - Present

- Investigating the use of machine learning models for MRI neuroimaging analysis and classification regarding the categorization of mental illnesses under Dr. Anil Deane
- Building unsupervised and supervised deep learning models and performing cluster analysis based on extracted latent features to better understand neurophysiological structure and bases of Schizophrenia and Bipolar
- Implemented Triplet Loss architecture and data preparation for mapping MRI images using PyTorch

Bitcamp

Logistics Organizer

College Park, MD

Nov. 2019 - Present

- Largest Spring collegiate hackathon in the US hosting over 1,500 hackers and volunteers
- Recruited over 200 volunteers and mentors, organized multiple workshops, and delegated tasks for volunteers

Projects

NYC Airbnb Price Prediction

An analysis on NYC Airbnb listings using statistical methods like hypothesis testing, and predicting listing prices using Linear, Ridge, and Elastic-Net regression models. (Python, sklearn, NumPy)

Jeopardy Question Search

A full-stack web app that queries through all aired Jeopardy questions based on trivia categories and air dates. Capital One 2020 Software Eng. Summit winning submission. (JavaScript, Fetch API, jService API, HTML/CSS)

Road Lane 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)