

Raymond Zou

(US Citizen)



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Education

University of Maryland

B.S. Computer Science and Mathematics

College Park, MD

Aug. 2018 – Dec. 2021

- **Gemstone Honors Program:** an undergraduate research program in the Honors College
- **Relevant Coursework:** Advanced Algorithms, Advanced Data Structures, Multithreading/Concurrency, Network Security, Natural Language Processing, Web Development, Data Science, Probability Theory, Linear Algebra

Skills

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

Experience

Apple

Software Engineer Intern | AMP Localization Engineering

Cupertino, CA

May 2021 – Aug. 2021

- Worked with a team of 4 engineers to develop a project management application for organizing localization/translation tasks supporting Apple Music and TV+ in 30+ languages
- Utilized Java Dropwizard framework and Hibernate to build backend REST API web service
- Implemented ranking algorithm to determine artist tier ranks based on percent of plays across global storefronts

Amazon

Software Engineer Intern | Amazon Fulfillment Technology

Seattle, WA

June 2020 – Aug. 2020

- Utilized Java Spring framework to develop a Hazmat label validation feature for a package processing application preventing over 2.9 million packages from shipping without federally required labels per year
- Integrated AWS SNS messaging into backend microservice interactions to aggregate defect codes into DynamoDB
- Leveraged internal APIs to refactor a diagnostic dashboard for AutoSLAM labeling machines

Federal Data Systems

Software Engineer Intern | Cyber Operations Development

Columbia, MD

June 2019 – Aug. 2019

- Designed and developed full-stack research tool using Hexagonal architecture for cyber-security evaluation and risk-analysis
- Designed schema for SQLite database and implemented core logic and backend REST APIs using Go
- Developed scoring algorithm to assess security protocols and federal compliance

Activities

University of Maryland

Undergraduate Researcher

College Park, MD

May 2019 – Present

- Utilized 3dVoxResNet machine learning model architecture implemented in PyTorch for structural MRI multi-class classification of psychiatric illnesses based on morphometric features
- Developed Python data tool for adapting standardized neuroimaging directory structures and image types (BIDS, DICOM, Nifti) using TorchIO preprocessing library

Bitcamp

Logistics Organizer

College Park, MD

Nov. 2019 – Apr. 2021

- Coordinated over 200 volunteers and mentors for the largest Spring collegiate hackathon in the US

Projects

NYC Airbnb Price Prediction

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

Terp Tutor

A full-stack web app complete with authentication, user management, database, and CSRF protected forms used to connect UMD students with course tutors. (Python, Flask, MongoDB, Bootstrap)

Jeopardy Question Search

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