

# Raymond Zou

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## EDUCATION

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### University of Maryland

*B.S. Computer Science and Mathematics*

College Park, MD

Aug. 2018 - May 2022

- Relevant Coursework: Data Structures, Algorithms, Data Science, Multivar. Calculus, Probability Theory, Applied Probability, Linear Algebra, Differential Equations
- Gemstone Honors Program, an interdisciplinary undergraduate research program

## LANGUAGES AND TOOLS

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Java, Python, JavaScript, Ruby, Go, C, OCaml, C++, SQL, HTML/CSS, Git, MATLAB

## EXPERIENCE

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### Amazon

*Software Engineering Intern*

Seattle, WA

May 2020 - Present

- Fulfillment Technology Ship Tools Team: optimizing the detection and handling of defect packages in Amazon Fulfillment Centers

### FedData

*Software Engineering Intern*

Columbia, MD

June 2019 - Aug. 2019

- Designed and developed internal research tool used to simplify the task of evaluating cyber-security due diligence for company consulting and acquisitions
- Implemented core logic and back-end of the application using Go, JavaScript, and SQLite
- Developed grading/scoring algorithm to assess company security protocols

### Institute of Bioscience and Biotech Research

*Research Assistant*

Rockville, MD

June 2017 - Aug. 2017

- Performed techniques such as plasmid extraction, antibody purification, DNA sequence analysis using Chromaseq software, ELISA, and polyacrylamide gel electrophoresis
- Contributed to a project developing HIV-1 broadly neutralizing antibodies

## ACTIVITIES

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### MIND.ai

*Research Assistant*

College Park, MD

May 2019 - Present

- 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 under Dr. Anil Deane
- Working on a team using unsupervised classification learning methods on fMRI brain scan images in order to perform cluster analysis and compare the clusters to those of the DSM-5

### Bitcamp

*Logistics Organizer*

College Park, MD

Nov. 2019 - April 2020

- University of Maryland's premier student-organized hackathon hosting over 1,500 hackers and volunteers
- Recruited over 200 volunteers and mentors, organized multiple workshops, and delegated tasks for volunteers

### REX Robotics

*President*

Timonium, MD

June 2017 - May 2018

- Raised over \$4,000 in funds through hosting local robotics events and securing grants from local companies
- Won the Maryland State Championships qualifying for the VEX World Championships and US National Championships and spearheaded the development of a new FRC robotics program

## PROJECTS

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### US COVID-19 Visualization

A choropleth map visualization showing the number of COVID-19 cases throughout the US by county over time and its impact on state unemployment rates. (Python, Plotly, NumPy, Pandas)

### Jeopardy Question Search

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

### 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)