

BRIAN ROYSAR

Los Angeles, CA | github.com/brianroysar | [linkedin.com/in/brianroysar](https://www.linkedin.com/in/brianroysar) | brianroysar@ucla.edu

EDUCATION

University of California, Los Angeles

Los Angeles, CA

M.S. Computer Science

Expected June 2024

B.S. Computer Science, B.S Applied Mathematics (GPA: 3.85/4.00)

June 2023

Coursework: Data Structures and Algorithms, Programming Languages, Software Engineering, Operating Systems, Computer Networks, Data Science, Data Management Systems, Discrete Math, Graph Theory, Stochastic Processes, Linear Algebra, Probability and Statistics

WORK EXPERIENCE

Yahoo

Sunnyvale, CA (Remote)

Software Engineer Intern

June 2023 – Present

Garud Lab

Los Angeles, CA

Undergraduate Research Assistant

July 2022 – Present

- Automate large-data retrieval, cleaning, and filtering with bash scripting for data on the human gut metagenome and metatranscriptome raw sequence reads
- Created statistical analysis pipelines using Python, NumPy and pandas to identify RNA editing sites in the metagenome as well as identifying species based on their mutational signatures
- Utilized Matplotlib and Plotly to create multiple data visualizations on results from the processing stage

Photon Commerce

San Francisco, CA (Remote)

Software Engineer Intern

June 2021 – September 2021

- Utilized Python, RegEx and Pytesseract to further develop backend that processes invoice and receipts and converts it to JSON and further improve recognition accuracy for multiple invoice fields by ~45%
- Collaborate on Python scripts with NumPy and pandas to help automate testing and processing large ground truth dataset
- Performed code-reviews with fellow interns to maintain best practices and produced QA reports about deployed product

UCLA Undergraduate Learning Assistant Program

Los Angeles, CA

Pedagogy Head Learning Assistant

September 2021 – December 2021

- Continued responsibilities of an Undergraduate Learning Assistant while overseeing a team of four learning assistants to ensure their smooth transition into the program and lead weekly pedagogy and reflection discussions with the team

Undergraduate Learning Assistant

September 2020 – December 2020

- Facilitate student learning and collaboration in the course COMSCI 33: Introduction to Computer Organization by collaborating with TAs to lead weekly discussion sessions that consisted of 15-20 students
- Engaged in a weekly pedagogy seminar where we explored current topics in pedagogy, education research focused on methods of learning and further develop awareness of inclusive learning practices
- Collaborated closely with other LAs to create weekly worksheets for discussion sections

PROJECTS

Server Herd

- Utilized Python, asyncio and AIOHTTP to create a server herd that stores client's locations, propagate the information via a flooding algorithm, and send location information to clients
- Integrated Google Places API to return information about nearby locations based on current user location

BruinByte

- Developed a website where students can leave reviews and ratings for restaurants in the Westwood area utilizing JavaScript and React to build the frontend
- Implemented the backend that stores user data, reviews and restaurant information using Google Firestore

NuVoice

- Develop a speech therapy iOS app using Swift for stroke patients that allowed patients to undergo their sessions at the comfort of their own home and without the need to commute and pay large clinic fees

SKILLS

Programming Languages: Python, C++, C, Java, JavaScript, SQL, Lisp, MATLAB, HTML, CSS

Tools and Frameworks: Bash/Shell Scripting, React, Google Firestore, Git, RegEx, LaTeX, Pandas, NumPy, Figma

Honors: Dean's Honors List (2020-2021), 2x Gold Medal winner in Senior United Kingdom Mathematics Challenge (Top 5-10% of 40,000 competitors) (2018 & 2019)