

Ryan Purpura

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Education

University of California, Berkeley, Class of 2021

- B.S. Electrical Engineering and Computer Science, GPA 3.95
- *Selected coursework:* Data Structures and Algorithms, Introduction to Database Systems, Introduction to Computer Security, Efficient Algorithms and Intractable Problems

Work Experience

UC Berkeley RISE Lab, 2019

Undergraduate Research Assistant

- Research under PhD student Yifan Wu, focused on improving the development and presentation of interactive data visualizations
- Developed a caching mechanism for more efficiently evaluating queries involving remote tables
- Implemented the presentation of data visualizations in Jupyter Notebooks using React.js and improved the interaction between the browser's Javascript engine and the Python backend
- Technologies used: Node.js, React.js, Typescript, Python

UC Berkeley EECS Department, Summer 2019

Undergraduate Student Instructor (CS 61BL: Data Structures)

- Taught a laboratory section consisting of three-hour sections four times a week with approximately 30 students, teaching data structures and graph algorithms in Java
- Contributed to development of laboratories, projects, and exams

UC Berkeley EECS Department, 2018-2019

Lab Assistant (EECS 16A & 16B: Designing Information Devices and Systems)

- Assisted a Graduate Student Instructor in running laboratory section of 20-30 students and assessing students' comprehension of the covered material

Parker Aerospace, Summer 2016

Engineering Intern

- Improved the execution time of MATLAB program that re-encoded binary data into a MATLAB-compatible format
- Wrote MATLAB program that detected the time intervals of signal aberrations

Projects

Ryme | github.com/rmpurp/ryme

- Dynamic blogging engine written in Node.js with single-page application frontend written in React.js, currently deployed at rmpurp.com

Bottweiler | github.com/rmpurp/Bottweiler

- Discord bot written in Python that allows recording of purchases split among a group
- Data is recorded into Google Sheets spreadsheet using the Google API Client

Skills: Python, Java, SQL, Javascript, Typescript, React.js