

RACHEL LEE

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

Berkeley, CA | 2019-2023

- **B.A. in Computer Science** – GPA: 3.55
 - Recipient of Regents' and Chancellor's Scholarship (awarded to the top 1% of incoming freshmen)
 - **Relevant Coursework:** Data Structures, Algorithms, Computer Architecture, Discrete Mathematics and Probability, Designing Information Systems, Structure of Computer Programs

PROFESSIONAL EXPERIENCE

WEB APPLICATION DEVELOPER – BERKELEY LAW

Berkeley, CA | February 2020 – Present

- Design and implement front-end and back-end development of web applications with web development team utilizing primarily PHP, MySQL, HTML, and JavaScript used by 1000+ users such as Berkeley staff, students, and alumni.
- Deploy efficient web applications practicing cybersecurity techniques such as preventing SQL injections, sensitive data exposures, and security misconfigurations.

TUTOR – KUMON MATH AND READING

Brentwood, CA | November 2018 – August 2019

- Instructed roughly 50 children daily and specialized in assisting students with learning challenges such as ADHD and autism, clarifying mathematical and reading concepts and applying effective learning strategies to improve retention.

PROJECTS

ENROLLMENT GRAPH WEB APPLICATION

JavaScript, HTML, PHP | April – June 2020

- Redesigned entire client-side visual representation of enrollment graph for Berkeley Law courses in JavaScript and HTML5 using Chart.js to create an aesthetic and user interactive interface for multiline charts.
- Assisted building back-end server-side in PHP, extracting data from JSON files with over 30,000 data entries and deployed web application for cross-platform compatibility with mobile devices, reducing runtime by 75%.

SF EVICTIONS 3D DATA VISUALIZATION

Python, JavaScript | May – June 2020

- Constructed interactive 3D geospatial visualizations of over 40,000 eviction notices to analyze all communities within San Francisco impacted from evictions by integrating Deck.gl, Mapbox and NodeJS with public data.
- Predicted rate of growth of evictions over time from 1997 to present using machine learning algorithms and tools for time series forecasting such as linear regression and kNN.

GITLET: RECREATION OF GIT

Java | April – May 2020

- Created from scratch a working implementation of the git-version control system starting from the detailed design documentation to replicate core functionalities.
- Learned how to apply persistence and preserve each state of the program, utilizing graph traversals to handle conflicts and criss-cross merges.

EXTRACURRICULARS

DIRECTOR OF TECHNOLOGY – NOVA

Berkeley, CA | July 2020 – Present

- Create entire online presence of the organization designated to engage young girls and underrepresented minorities in STEM and product design, executing design for website and managing all software and technical responsibilities.

GROUP LEAD VOLUNTEER – UC BERKELEY GIRLS IN ENGINEERING

Berkeley, CA | July 2018

- Encouraged roughly 120 young middle school girls to explore different fields of engineering by building 3D printed prosthetic hands, explaining practicalities of self-driving cars and demonstrating creative projects of biomimicry.
- Collaborated with dozens of female professors and graduates to share insights within STEM industry and research.

SKILLS

•Python •Java •JavaScript •HTML5/CSS •PHP •SQL/MySQL •Git •React •NodeJS