Saransh Saini

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EDUCATION

University of California, Berkeley   **Berkeley, CA**

B.A. Computer Science, B.A Mathematics, 3.8 GPA   *Class of 2024*

EXPERIENCE

[UC Berkeley Electrical Engineering and Computer Science Department](#)   **Berkeley, CA**
Academic Teaching Intern   *June 2021 · Present*
· Guide students through labs, discussions, and projects by teaching tough topics and reviewing concepts myself to
  be as effective a teacher as possible.
· Lead students through topics such as trees, graphs, hashing, recursion, programming paradigms, among much more.

[IEEE Berkeley](#)   **Berkeley, CA**
Software Developer and Member   *October 2020 · May 2021*
· Build web applications using JavaScript/HTML/python/Django/Node among other technologies.
· Lead educational seminars on computer science to students at Berkeley and beyond.

[Quiver Quantitative](#)   **Edison, NJ**
Software Engineering Intern   *October 2020 · January 2021*
· Utilize web scrapping, APIs, and data analysis to build financial data sets and visual models.
· Slashed workflow impedance by automating the daily data updating algorithm with python.
· Built a [database](#) using the Stack Overflow API to present trends in tech popularity amongst developers.

[The Daily Californian](#)   **Berkeley, CA**
Data Analyst   *September 2020 · January 2021*
· Analyzed data with python and used D3.js to create models and visualizations.
· Accelerated the data gathering process using APIs and data scraping automation.
· Led editorial and writing staff in the data visualization process to teach D3 and JS fundamentals.

PROJECTS

[Gitlet](#)   *February 2021*
· Recreated the Git version control system entirely from scratch, entirely in Java.
· Implemented all core features (add, commit, merge, reset, push, pull, fetch, etc).
· Optimized file storage and version control using serialization, hashing, and the File system.
· Code available upon request.

Procedural Rogue-Like Game   *April 2021*
· Designed an algorithm to create a valid 2D Zelda-like map using binary space partitioning based off the user
  inputted seed.
· Implemented loading and saving, enemy movement, easter-eggs, and dashing.
· Code available upon request.

Sketchy.io @ IEEE Berkeley   *October 2020 · May 2021*
· Developing an enhanced version of a Pictionary-like game with a team of students from IEEE Berkeley.
· Cut multiplayer latency by 50% by optimizing the data send-and-receive process between browsers.
· Building front end with React.js/CSS/HTML and backend with Node and WebSockets.

[MERN Geolocation Social Media App](#)   *December 2020*
· Social media web app that allows for users to share places with friends using MongoDB, Node, Express, and React.js.
· Connected to the Google API and Firebase to provide full location and authentication services.
· Fortified my understanding of the File System, database integration, and authentication.

SKILLS

Languages: Python · Java · SQL · JavaScript · Git

Analytics/Technologies: Numpy · Pandas · MongoDB · D3.js

Web/Media: React.js · HTML/CSS · React Native · Node.js · Express.js