RICHARD ZHU

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EDUCATION	**University of California, Berkeley**	**Graduation** May 2022
	B.A. Computer Science	**GPA** 3.94

EXPERIENCE

UC Berkeley Department of Anthropology Feb. 2020 — May 2020
Software Developer *Berkeley, CA*
- Developed an image auto-processing pipeline in Python, used on 151,173 manuscript scans
- Optimized text legibility by dewarping, deskewing, and binarizing image scans with OpenCV
- Extracted text data from selected documents via OCR, utilizing Google Cloud's Vision API

UC Berkeley Department of EECS May 2020 — Present
Course Tutor *Berkeley, CA*
- Led 6 weekly group tutoring sections for students in CS 61A (Intro to Programming)
- Answered conceptual questions and assisted students with debugging during office hours
- Graded student projects for correctness and proper Python programming style

California PATH (Partners for Advanced Transportation Technology) Oct. 2019 — Jan. 2020
Research Assistant *Berkeley, CA*
- Evaluated potential safety impacts of a Caltrans-proposed freeway emergency alert system
- Wrote Python scripts to sync sensor data collected from driving simulation experiments

PROJECTS

Investment Portfolio Diversity Visualizer github.com/richardszhu/BR-pdv
Python
- Won the BlackRock API Prize at Cal Hacks 6.0, the largest collegiate hackathon in the world
- Built a tool to help diversify investment portfolios based on a given security data attribute
- Categorized and displayed stock market data using BlackRock's Aladdin API and MatPlotLib

Bomberman Remastered github.com/richardszhu/Bomberman
Java
- Created a multiplayer version of the game Bomberman that can run on modern computers
- Utilized the Java Swing toolkit to design menus, handle controls, and execute game events

Gitlet Private Repository
Java
- Constructed a working version control system that replicates the core functionality of Git
- Implemented features such as file staging, commits, branching, merging, tracking status, etc.

Personal Website github.com/richardszhu/website
JavaScript, HTML, CSS
- Designed and built a personal site from scratch, utilizing the Bootstrap front end framework
- Ensured font and layout compatibility for any operating system, display size, or web browser

ACTIVITIES

Computer Science Mentors Aug. 2020 — Present
Content Writer *Berkeley, CA*
- Wrote practice problems and created review material for students in CS 61B (Data Structures)

UC Berkeley Department of EECS Jan. 2020 — Aug. 2020
Academic Intern *Berkeley, CA*
- Assisted students with completing lab programming assignments in CS 61A and CS 61B

AWARDS

Winner, Cal Hacks 6.0 BlackRock API Prize Oct. 2019
Winner, Intuit George A. Hansen Computer Science Scholarship Apr. 2019
Winner, Intuit Academic Scholarship Apr. 2019

SKILLS

Python, Java, C, C++, SQL, HTML, CSS, JavaScript, Git, Unix, Bootstrap, NumPy