Brandon Wang

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Education

University of California, Berkeley 4.0/4.0

Bachelor's Degree in Computer Science

Expected May 2023

Berkeley, CA

Relevant Coursework

- Data Structures and Algorithms
- Discrete Mathematics and Probability Theory
- Efficient Algorithms and Intractable Problems
- Full Stack Web Development
- Designing Information Devices and Systems
- Foundations of Data Science
- Structure and Interpretation of Computer Programs
- Statistics in Data Science

Experience

Segmed (segmed.ai) – Democratizing healthcare data for medical AI (YCombinator W2020)

May 2021 - Present

Palo Alto, CA

- Software Engineer Intern
 - Built core functionality of RESTful microservices in Golang for querying, requesting, and exporting scrubbed imaging datasets along with various API endpoints using MUX router, Redis, and structured unit tests.
 - Delivered live production-level UI features including the DICOM viewer, a comprehensive usage analytics dashboard, and the metadata regex formatter for cleaned datasets valued at \$200,000+ using TypeScript, React.js, Go, and Tailwind.
 - Improved data pipeline efficiency by up to 35% at the processing stage by introducing a layered OCR model utilizing an EAST detection scheme with OpenCV and PyTesseract for the redaction of private health info.
 - Refactored PostgreSQL database procedures and wrote migration scripts to reduce excess querying round-trips tenfold.

UC Berkeley EECS (CS 198-93) - EECS dept.'s full stack web development decal course

January 2021 - Present

Berkeley, CA

- CS 198-93 Lecturer
 - Facilitated biweekly lectures, office hours, and lab sections for 100+ students with a team of teaching assistants. Developed meaningful course curriculum and mini-projects on HTML/CSS/JS, vim, Git, HTTP, Firebase, and Flask.
 - Partitioned TCP ports on an AWS EC2 instance for student cloud development on lab assignments and final projects.

Cal Hacks (calhacks.io) – UC Berkeley's premier hackathon and fellowship non-profit org

August 2020 - May 2021

Full Stack Developer

Berkeley, CA

- Engineered the hello:world hackathon portal with 2,000+ daily visitors including the application pipeline, event scheduler, and UI/UX in TypeScript, Express, React.js, and Python.
- Created API endpoints and TS response handlers for data on sponsors, partners, hacker resources, and team formation.
- Handled SQL data migrations on production database to update scoring/judging procedures for thousands of hackers.

Projects

contextr.io (link) | A social network site from scratch for "out-of-context" moments

Stack: jQuery, Firebase, Node.js

- A fully functioning social media suite (~100 users) with posting, liking, commenting, friends, themes, and a wide range of personalization built without templates – preview w/ anonymous profile viewing: https://contextr.io/users/brandon
- Complete with an intuitive front-end that organizes large amounts of user/post information efficiently and offers many interactive front-facing components like user statistics, number of likes/comments, user notifications, profile customization, and unique user profile URLS.

Graph Algos Visualizer (link) | Visualizes algorithms as seen in CS 61B

Stack: React.js, vis.js, Graph3D

- A visualization tool to help understand the runtime processes of the pathfinding and MST algorithms introduced in UC Berkeley's Data Structures and Algorithms course (CS 61B) on various undirected graphs.
- Clean UI allowing users to randomize and resize the graph, select algorithms, and interact with graph nodes.

Postmint | Automating Instagram for small businesses with DS/ML

Stack: JavaScript, sklearn, Flask

- A platform in which user-inputted product listing image galleries automatically generate an Instagram campaign.
- Pipeline utilizes Google Vision AI for image labelling and G Trends API with normalized search engine results via sklearn for optimized caption and hashtag generation.

Technical Skills

Technologies: Python, Java, React.js, TypeScript, Golang, PostgreSQL, TailwindCSS, Liquid, GCP/Firebase, Git Wireframing and Design: Figma, Adobe Photoshop CC, Adobe After Effects, Vegas Pro 14 Project Management: Jira Software, Confluence, SonarCloud, GitHub, GitLab, Docker, Slack Integrations

${f Awards}$

• SunHacks Best DS/ML/AI Hack - Arizona State University • SunHacks 1st Place Google Cloud App - Arizona State University • HackGT Semifinalist - Georgia Tech • HackATL Top 8 Best Hack - Emory University • 1st Place Hack for Housing @ HackTX – UT Austin • VFA ME 2nd Place – Columbia University