Arav Watwani

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Education

University of California, Berkeley — Berkeley, CA
B.A. Computer Science, Certificate in Design Innovation — *Expected Dec. 2023*

Experience

UC Berkeley, Haas School of Business — Berkeley, CA
Undergraduate Researcher — *Sept. 2020 – Present*

- Building data pipelines with Pandas to streamline relevant regulatory comments from government documents
- Implementing computational linguistics tools such as latent semantic analysis to analyze large quantities of text
- Applying data science techniques to aid research in the Berkeley Political Economy Research Lab (BPERLab)

SKUVision — San Diego, CA
Software Engineer Intern — *Jul. 2020 – Aug. 2020*

- Employed Flask and Google's OAuth 2.0 API to develop a full-stack application that ensures user authentication
- Responsible for giving design direction for an inventory analytics system for supply, demand, and quality control
- Learned about testing methodologies and debugging to help build a more robust and high quality product

DoctorLingo — San Diego, CA
Front-End Developer — *Jun. 2020 – Aug. 2020*

- Implemented React and TypeScript to build a platform which aims to simplify complex medical terminology
- Communicated with other teams to create efficient workflow and version control with Git

Projects

Personal Website | *React, Node.js, GraphQL*

- Designed a personal portfolio and blog to showcase design endeavors, programming projects, creative writing
- Built scalable APIs and queried data, resulting in instant static page loads and faster build and deploy times

Scheme Interpreter | *Python, Scheme (Lisp)*

- Wrote and developed an interpreter for a subset of the Scheme programming language in Python
- Learned how to address issues and implementation decisions that arise in the design of programming languages
- Implemented concepts such as parsing Scheme expressions, lambda expressions and procedure definition, and specific data types to better understand functional programming

Static Site Generator | *Python*

- Built a static site generator that increases website speed, build times, version control, and security
- Aims to eliminate server-side interferences and improve rendering times by creating HTML files from templates
- Converts Markdown files into rendered HTML using the Jinja2 templating language for Python

Kirby Finds the Cake | *Java*

- Developed a program that inputs a user-created text file of a map and uses a pathfinding algorithm to determine the shortest distance between a given character "Kirby" and the final destination "Cake"
- Worked with Stack, Queue, and HashMap data structures to test memory and runtime complexity and efficiency

Honors

Recipient, National Merit Finalist, AP Scholar with Distinction, National Merit Corporate Scholarship, California State Seal of Biliteracy, CTE Information and Communication Technologies Award, Agilent Technologies Externship

Skills

Languages: Java, Python, JavaScript, HTML/CSS, SQL, GraphQL, Scheme (Lisp), TypeScript
Frameworks/Technologies: React Native, Node.js, Express.js, MongoDB, Flask, Django, Bootstrap
Libraries: Pandas, NumPy, Matplotlib, D3.js, Selenium, Bokeh