Boyuan Deng

Berkeley, CA, 94720 | 949-656-5958 | dengboyuan2001@berkeley.edu | Boyuan-Deng.com

EDUCATION

Universtiy of California, Berkeley - B.S. Electrical Eng & Comp Sci   Aug 2020 - Apr 2023
- GPA: 3.61 / 4.00
- Relevant Coursework: Database System (CS 186), Efficient Algorithms (CS 170), Data Structure & Algorithm (CS 61B), Principles and Techniques of Data Science (Data 100), Discrete Mathematics (CS 70), Entrepreneurship & Innovation (IND 190E)

WORK EXPERIENCE

Applient - Software Developer   Summer 2021
- Developed a Chrome extension tool using JavaScript to automate the process of completing online job applications
- Built a user portal using HTML, CSS, Bootstrap to collect application information, hosted the website with AWS EC2, CloudWatch to monitor website performance, and store user data using Chrome storage API
- Implemented a web scraper using Python Beautiful Soup (BS4) and HTTPX to collect job-related information from static websites
- Utilized jQuery to perform DOM monitoring and modification for auto-filling based on user action and corresponding input field
- Iterated the auto-filling feature based on bug reports and user feedback to increase user retention by 20 percent
- Launched a resume builder for fast resume iteration through Figma prototyping and React.js programming

Avalanche Computing - Software Engineer Intern   Sept 2021 - Present
- Collaborated with UI team to build a dashboard that displays AI-generated alerts and insights using Vue 3.0 and Gitlab to exercise CI/CD workflow and deployed service using AWS S3
- Built a React Web App that leverages Tensorflow.js speech recognition model to display speech commands on the website screen

RISE Lab at UC Berkeley - Undergraduate Researcher (Mentor: Shreya Shankar)   Aug 2021 - Present
- Research Topic: tracing tools to enhance observability for ML Pipelines in the context of heterogeneous stacks of tools
- Created dashboards and pictograms with React.js to convert querying results from pipeline component run to insights regarding component performance by linking back-end generated data with front-end React component
- Built Docker container to separate React servers, database, and flask from the testing component for faster visualization generation

TECHNICAL SKILLS

- **Languages:** Python, JavaScript, Java, HTML/CSS, SQL, C, C++
- **Stacks:** AWS, React.js, Vue.js, jQuery, Bootstrap, Express.js, Pandas, NumPy, Node.js, Django, Git, Jupyter

PROJECT EXPERIENCE

BCrowd - COVID Exposure Alert App   Fall 2020
- Programmed the Raspberry Pi to track nearby Bluetooth signals and communicate data with client-server using socket
- Used Python PyBluez to develop the functionality of signal tracking, filtering, and storing with three other software engineers

Mineworld - Roguelike 2D Tile-Based Game   Spring 2021
- Coded a game engine with Java to randomly generate a 2D tile-based world map using Binary Space Partitioning tree structure
- Handled basic keyboard interaction and graphic display using StdDraw and prototyped a Figma design for game starting page
- Built save and load method using Java FileWriter class to record game state and player data

Gitlet - File Version Control System   Spring 2021
- Prototyped a Java system to accomplish file version tracking, file reversion, and conflict merging
- Exercised object-oriented programming and abstraction barrier to simplify the process of maintaining and debugging codebase

Pathify - Manufacturing Tracking System   Spring 2021
- Built a web-based tracking portal to digitalize the process of data entry and item registration
- Developed a backend application using Python, Django, and MySQL to handle database management and data visualization