Justin Ly

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Education

University of California, Merced *Chancellor's List* August 2021-May 2025
Bachelor of Science, Computer Science & Engineering Major
Relevant Courses: Data Structures, Algorithm Design & Analysis, Calculus, Discrete Mathematics, Full Stack Web Development
Organizations: HackMerced, Association of Computing Machinery, Solar Energy Association, Vietnamese Student Association

Work Experience

Full Stack Web Developer, University of California, Merced *(Merced, CA)* January 2024-Present
- Spearheaded database development by leveraging BeautifulSoup and Selenium to scrape data from the UCM course catalog, resulting in a streamlined database that significantly improved data accessibility and accuracy by 97.83%
- Directed the research and development efforts for a comprehensive course recommendation system
- Developed a system using Python & SQLite, generating personalized course recommendations by querying user enrollment history, identifying untaken courses, verifying prerequisites, and compiling a refined list of suitable courses to streamline semi-annual student registrations.

Tutor/Grader, Kumon North America Inc. *(Burlingame, CA)* July 2019-August 2021
- Evaluated and graded student worksheets promptly, ensuring timely feedback and error correction. Demonstrated strong attention to detail and efficiency, skills crucial for software development and debugging processes.
- Conducted periodic assessments and benchmark tests to track student progress. Utilized data analysis to identify areas for improvement, reflecting the analytical skills needed for problem-solving and optimizing algorithms in CSE roles.

Projects

Hackathon Agricultural Review Tool (Link) | *HTML, CSS, JavaScript, BeautifulSoup, Python, Flask, SQLite* March 2024-March 2024
- Constructed an application leveraging data scraped from the USDA database on all 50 states, facilitating efficient data analysis and visualization capabilities for agricultural data sets, thus streamlining the process of accessing and interpreting agricultural data
- Analyzed accumulated data, enabling the derivation of actionable insights and trends, thereby providing valuable information on crop performance, market trends, and profitability metrics, empowering data-driven decision-making for agricultural stakeholders
- Automated data collection using BeautifulSoup and Python scripts to streamline agricultural data collection

Job Application Tracker (Link) | *Flask, SQLite, Python, HTML, CSS, JavaScript* May 2023-November 2023
- Developed a job application tracker application with Python & SQLite, incorporating two interconnected tables with a left-join operation to link users with their respective added job listings seamlessly, architecting the backend database schema and ensuring data integrity throughout the application
- Implemented intuitive user interfaces and optimized design strategies to enhance usability and efficiency within the interface, ensuring a seamless and user-friendly experience for job seekers
- Designed and integrated RESTful API endpoints in Flask to facilitate seamless communication between the frontend and backend by defining clear API routes and handling HTTP requests and responses, thus enhancing overall system performance and responsiveness

Personal Portfolio Website (Link) | *HTML, CSS, JavaScript* May 2022-August 2022
- Launched continuous deployment through GitHub, ensuring uninterrupted accessibility and visibility of the portfolio with a custom domain name, enhancing professional presence and reach
- Leveraged GitHub as a version control system to manage project files and track changes, ensuring code integrity and facilitating seamless collaboration

Technical Skills

Programming Languages: Python, C++, JavaScript, Java
Web Authoring, Frameworks, & Libraries: HTML, CSS, Flask, Selenium, BeautifulSoup
Databases: SQLite