OSCAR DIAZ VEGA

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EDUCATION

San Jose State University - Bachelors of Science, Computer Science, GPA 3.9	May 2024
Hartnell College - Associates Degree, Computer Science, GPA 4.0	December 2021

TECHNICAL SKILLS

Libraries/Frameworks│ React, React Native, Next.js, Flask, Bootstrap, Tailwind, Pandas
Languages│ Python, Java, C, C++, SQL, Cypher Query Language, Javascript, TypeScript
Testing/Deployment│ Docker, JUnit, Postman, PyUnit
Databases│ MySQL, Neo4j, MongoDB, Cassandra, Redis

EXPERIENCE & PROJECTS

Software Engineer Intern | CTI-CodeDay   June 2022 - Aug 2022

Open-source Development — Javascript | Java

- Contributed to the CodeCheck open-source project, an anonymous auto grader for instructors.
- Mentored and supervised by Cay Horstmann, Professor at PFH Private Hochschule Göttingen.
- Created a local file system in Java, using OOP component based architecture that enabled students to save, retrieve, and edit their work locally on command.

iMoneyTracker   June 2022 - Aug 2022

Mobile Application — Javascript | Redis | Firebase

- Designed and implemented a mobile app using React Native for tracking user expenses and finances.
- Utilized Google Firebase to ensure seamless cloud-based data storage, authentication, and user management.
- Securely authenticated users using Google OAuth and password hashing encryption.
- Optimized data handling by caching frequently accessed financial data in Redis, achieving a 22% reduction in average data retrieval times.

Full-Stack Software Engineer | Hoken Online Bank   Aug 2023 - Nov 2023

Front-End Development Lead, Back-End Architecture — React | TypeScript | Bootstrap | Flask | MySQL | Docker

- Led the development and design of the application's user interface, using React, Bootstrap, and TypeScript. Achieved 65%
- test coverage of the application using PyUnit.
- Facilitated weekly stand-up meetings as the Scrum Master, guiding discussions on the team's progress and project milestones.
- Containerized the entire application using Docker for efficient deployment and scalability.
- Mentored 2 peer engineers on front-end development and best practices.

Full-Stack Software Engineer | SongSnap   Sep 2023 - Dec 2023

Front End Developer, Lead Back-End Engineer — React | TypeScript | Bootstrap | Express.js | MySQL | Docker

- Crafted a dynamic full-stack social media platform, centered around music sharing, with React, Express, and MySQL.
- Normalized the database to decrease query retrieval times by 8%.
- Integrated Deezer's APIs for music search and playback functionality.
- Leveraged AWS S3 Buckets for efficient and scalable image storage and retrieval within the application.
- Containerized the entire application using Docker, enabling swift development, deployment, and scalability.

Full-Stack Software Engineer | PopcornPicks   Feb 2024 - May 2024

Front-End and Back-End Lead, Database Developer — Next.js | Tailwind | TypeScript | Python | Java | Spring Boot | CQL | Neo4j

- Created a personalized movie recommendation system using user preference collection techniques with Next.js, Tailwind, Spring Boot, and Neo4j.
- Designed and implemented the application's user interface that was awarded the classes' best user interface across all projects.
- Leveraged Next.js server-side rendering for movie props to increase the rendering speed of retrieved individual movie detail pages by 28%.
- Optimized data retrieval efficiency by leveraging Neo4j's graph-based model to represent user and movie data and relationships.
- Web scraped data from IMDB's top 250 movies using Python Beautiful Soup and stored it in the Neo4j database.
- Designed the recommendation algorithm that utilizes a user's preferences along with their followed users' preferences to generate a personalized movie playlist.