Brandon Morimoto

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SKILLS

Programming Languages: Python, Java, Javascript, Typescript, Golang, Rust, C#
Databases: MySQL, MongoDB, PostgreSQL, Cassandra, Redis
Frameworks/Libraries: Django, Flask, FastAPI, React.js, Next.js, TensorFlow, Scikit-learn, pandas, JUnit, Express.js, GraphQL, Spring Boot, Jest, Cypress
Tools: Git, GitHub, Gradle, Docker, Postman, AWS, Unix, Linux, Bash, SQL, HTML, CSS, Node.js

EXPERIENCE

Web Developer at Chipster **02/2022 - 05/2022**
Redesigned a website using WordPress for a non-profit organization. Utilized SCRUM methodologies to structure and organize the project. Created Newsletter signups and donation pages and connected them to a MySQL database to efficiently let users request educational resources, donate devices, and stay up to date with Chipster.

EDUCATION

San Jose State University **08/2017 - 05/2022**
B.S. in Management Information Systems, minors in Computer Science, Mathematics
Coursework: Data Structures and Algorithms, Object Oriented Programming, Relational Databases, NoSQL Databases, Machine learning, Artificial Intelligence, Linear Algebra, Discrete Math, Probability, Statistics, Spectral Graph Theory
Awards and Certificates: Dean's Scholar in 2018 and 2020, Deep Learning Specialization

PROJECTS

Malware Classification via Stacking
- Implemented a Hidden Markov Model (HMM) from scratch in Java to classify malware samples based on opcode sequences to achieve an AUC of 54% - 90% depending on the malware family.
- Processed the data by mapping opcodes to integers to feed into the HMM.
- Stacked HMM and SVM to enhance the AUC to 84% - 100% depending on the malware family.

Handwritten Equation Solver using Deep Learning
- Built a full-stack web application that solves handwritten equations using Django and React.
- Implemented a modified LeNet-5 architecture using Tensorflow to achieve a validation accuracy of 99%.
- The user writes an equation on a canvas that gets sent to the server as a base64 encoded string. The result is then displayed on the client side.
- Processed images using OpenCV to find ROI and bounding boxes.

Maze Mania
- Built a maze game where the user moves a dog carrying a pizza through a series of mazes.
- Game features include in-game notifications, reset/time traps, and increases in difficulty throughout the mazes.
- The project was structured using the MVC design pattern and tested using JUnit.

Personal Website and Blog
- Built a portfolio website to showcase my projects and blog about technical and non-technical things.
- Used Next.js with Tailwind CSS to build and style my website.
- Implemented a Markdown-based blog to create new blog posts
- Deployed the website on Vercel