

Brandon Morimoto

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SKILLS

Languages: Java, Python, Javascript, Rust, Golang, Bash, SQL, HTML/CSS

Databases: MySQL, MongoDB, Cassandra

Frameworks/Libraries: Django, React.js, Next.js, Axios, TensorFlow, Scikit-Learn, NumPy, pandas, JUnit

Tools: Git, Gradle, Docker, Postman, AWS EC2, Unix/Linux

EXPERIENCE

Chipster - Web Designer

Feb 2022 - May 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.

EDUCATION

San Jose State University

San Jose, CA

Bachelor of Science, Management Information Systems

Aug 2017 - May 2022

Minors in Computer Science and Mathematics

Coursework: Machine Learning, Artificial Intelligence, Data Structures and Algorithms, Object Oriented Design, Databases, Discrete Math, Linear Algebra, Calculus, Probability, Statistics, Spectral Graph Theory

Awards and Certificates

Dean's Scholar, an undergraduate who earned a 3.65 GPA in two contiguous semesters (2018, 2020)

Deep Learning Specialization (Neural Nets, Hyperparameter tuning, Conv Nets, Sequence Models, Structuring Projects)

PROJECTS

Malware Classification ([GitHub Link](#))

Java | Python | Scikit-learn

- 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 ([GitHub Link](#))

Django | React.js | Tensorflow | OpenCV

- Built a full-stack web application that solves handwritten equations using deep learning.
- Used a modified LeNet-5 architecture 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.

Distributed Data Management (Private repo)

Python | AWS EC2 | MongoDB

- Deployed a sharded cluster of 3 nodes with replica sets on AWS EC2 instances. Used 3 shards and each shard is replicated in a set of 3 members, a config server with a replica set of 3 members, and a single mongos instance.
- Used a dataset of Airbnb listings to populate the database using pymongo and implemented a CLI to search, insert, delete, and update Airbnb listings in the database.

Maze Mania (Private repo)

Java | Java Swing | JUnit

- Built a maze game in Java using the MVC design pattern, created UML/CRC diagrams, and wrote unit tests to ensure game logic worked correctly.
- Game features included increasing level difficulty, reset/time-based traps, and in-game notifications.
- Implemented the GUI using Java Swing and used Adobe Illustrator for the maze and the character design.