Daniel Mao

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EDUCATION

Saint Louis University **St. Louis, MO**

Bachelor's Degree of Science in Computer Science (May 2023), **Cumulative GPA: *3.82/4.00***

Awards: Dean´s Scholarship, Dean´s List for five consecutive semesters

Relevant Coursework: Data Structures, Software Design, Algorithms, Computer Architecture, Operating Systems, Object-Oriented programming, Software engineering, Machine Learning, Web Technologies, Databases

WORK EXPERIENCE

Spacelab

Machine Learning Engineer Intern 06/2022-08/2022

- Automated ETL process, ML model, and deployment of predictions to a NoSQL database's lookup table for front-end application consumption through a GraphQL API.
- Enhanced a Convolutional Neural Network's (CNN) binary classification of exoplanet images by identifying common patterns in light curve functions.
- Implemented AWS cloud computing microservices for scaling the project using Lambda functions and EC2 instances, which execute automatically with triggers.

Undergraduate Research

Undergraduate Student *07/2021-Present*

- Investigated the impact of Machine Learning architectures on data privacy by implementing membership inference attacks.
- Preprocessed the datasets used in the research in order to fit it into the Machine Learning models and ran the models using CUDA.
- Created Python scripts for data visualization and analyzed data that would support a thesis for a research paper.

PROJECT EXPERIENCES:

SIB (React) [https://github.com/oss-slu/Seeing-is-Believing]

- SIB is an open-source project that helps students to improve their accents on foreign languages through a website that can be monitored by instructors.
- Used Firestore to store our data which is a NoSQL database that is in the cloud in order to store the user information for the login and relevant data.
- Assisted in assigning and resolving project tickets, contributing to the successful completion of project deliverables and ensuring timely resolution of technical issues.
- Implemented Continuous Deployment and Continuous Integration (CD/CI) processes in Heroku to ensure seamless and automated deployment of code changes to production.

Emotion Detector (Python)

- Trained a program that can take images of people´s faces and predict their emotions based on their facial features using machine learning models using a dataset from Kaggle.
- Implemented two different models to train the program which are Linear Regression and Convolutional Neural Network where the tested accuracy has a 78% rate of success in the predictions.

2048 (Java)

- Designed an game app in a working team environment that was built on Gradle following software design principles such as inversion dependency principle or Liskov substitution principle.
- Implemented a MVC (model-control-view) design that allowed the team to have a more efficient error testing and divisible work frames.
- Communicated with the team and worked with Git repositories where I organize each piece of code according to our design and performed JUnit tests in our model.

SKILLS & INTERESTS

Programming languages: Python, JavaScript, HTML, CSS, C/C++, JavaReact.js, AWS, Pytorch, Tensorflow, SQL, R, API

Languages: English, Chinese (Mandarin), Spanish