Jadon Lai

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jadonlai.github.io/github-portfolio

EDUCATION

Woodcreek High School, Roseville, CA *Aug. 2017 – Jun. 2021*

- **GPA:** 4.27

California Polytechnic State University, San Luis Obispo, CA *Sep. 2021 – Present*

- **Major:** Computer Science (AI and Machine Learning), open to obtaining a Master's
- **Expected Graduation:** December 2024
- **GPA:** 3.484

EXPERIENCE

AI4SaR Instructional Student Assistant *Jun. 2024 - Present*

- Spearheading research and development with a team on searching for missing persons using public transit and AI. This is part of my senior project at Cal Poly and thus is constantly undergoing development, requiring careful time management. Currently developing the Public Transit Search Widget which is a map tool that predicts where a missing person might go. Uses Tensorflow and Scikit-Learn to create 6 comparable models: decision tree, random forest, ANN, RNN, LSTM, and BiLSTM models. Also implements Folium and Plotly for data analysis and mapping

SLO High School Assistant Coach *Apr. 2023 - Present*

- Coaching cross country and track and field athletes at SLO High School. Ensuring the safety of the student-athletes, and fixing technique and pacing. Obtained CPR and coaching certifications

Mustang Lanes *Dec. 2022 - Present*

- Associate at the bowling lanes at Cal Poly. Maintaining the lanes, fixing small problems on the machines, and running the front desk and arcade

PROJECTS

- **Evros:** Cross country app supported on iOS and Android to improve coach and fan interaction with student-athletes. Solo developing the full-stack application using Javascript/React Native in the frontend and Appwrite as the database. Features a custom attendance-taking page, synchronized race stopwatch, team schedule, and more. A beta version of the app was created from scratch in 2 weeks, with new features being constantly added. Currently in its testing phase, the app will be released by 2025
- **Pace Predictor:** Python machine learning project that predicts running pace based on Garmin data, implementing Numpy, Pandas, Matplotlib, Seaborn, Tensorflow, and Pyqt6
- **Wikipedia Game Solver:** Created 4 unsupervised and supervised AI algorithms (BFS, DFS, GBFS, and A*) to solve the Wikipedia Game. Developed a report and analysis on the results
- **Physics Engine:** Developing a 2D rigid body physics engine from scratch, using C# and MonoGame for visualizations. At the same time, developing an equivalent physics engine using C++ and SFML to analyze performance and speed
- **Tiny File System:** Created a tiny file system (TFS) that can be mounted on a UNIX file, supporting files, defragmentation, timestamps, and read/write permissions
- **Data Science For Cars:** Analysis of cars for college students. Used KNN and KMeans clustering on a Kaggle dataset of used cars. Cleaning, making models of, and graphically analyzing the data

SKILLS

- **Computer Programming:** AI/Machine Learning, Computational Neuroscience, Deep Learning, Tensorflow, (learning) PyTorch, Full Stack Development, Linux OS, Jupyter Notebook/Google Colab, Appwrite
- **Computer Languages:** Python, Java, Javascript, React Native, C, C++, C#, HTML, CSS, Assembly, Racket
- **Udemy:** Python for Data Science and Machine Learning Bootcamp
- **3D Animation/Game Design:** Unity, 3DS Max
- **Software:** Word, Excel, PowerPoint
- **Soft Skills:** Leadership, teamwork, critical thinking, problem solving, time management, communication