Jadon Lai

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jadonlai.github.io/github-portfolio

EDUCATION

California Polytechnic State University, San Luis Obispo, CA   *Graduating: Dec. 2024*

- **Major:** Bachelor's of Computer Science (AI and Machine Learning), open to obtaining a Master's
- **GPA:** 3.5
- **Dean's List:** 4 quarters
- **President's List:** 2023-2024

SKILLS

- **AI:** AI/Machine Learning, Computational Neuroscience, Deep Learning, Tensorflow, (learning) PyTorch
- **Full Stack:** Full Stack Development, Frontend, Backend, Appwrite, UI/UX, React, Material UI
- **Computer Languages:** Python, Java, Javascript/Typescript, C, C++, C#, HTML/CSS, Assembly, Racket
- **Software Skills:** GitHub, VSCode
- **Soft Skills:** Leadership, teamwork, critical thinking, problem solving, time management, communication

COMPUTER SCIENCE EXPERIENCE

- **Github Portfolio:** Portfolio website built as a simplified mockup of GitHub. Uses Typescript, React, and Vite to deploy a responsive site via GitHub Pages. The website offers a streamlined, intuitive experience, showcasing my portfolio with a refined and user-friendly design.
- **Evros:** Cross-country app to improve coach and fan interaction with student-athletes
    - Developing a responsive interface and cross-platform compatibility on iOS and Android
    - Solo-developing the full-stack application using JavaScript/React Native for the frontend and Appwrite as the database
    - Key features include a custom attendance-taking page, synchronized race stopwatch, and team schedule
    - Built a beta version of the app from scratch within two weeks, continuously adding new features
- **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:** Implemented 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

EXPERIENCE

AI4SaR Instructional Student Assistant   *Jun. 2024 - Present*

- Spearheading research and development of an AI-driven project locating missing persons using public transit
- Developing the Public Transit Search Widget, a predictive map tool indicating likely movements of missing individuals
- Employed TensorFlow and Scikit-Learn to build and compare 6 models: Decision Tree, Random Forest, ANN, RNN, LSTM, and BiLSTM
- Implemented Folium and Plotly for data analysis and geospatial 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