Leo Lee

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EDUCATION

University of Southern California   Los Angeles, CA
Master of Science in Computer Science - Data Science   *August 2023 - May 2025*

University of California, Santa Cruz   Santa Cruz, CA
Bachelor of Science in Computer Science, GPA: 3.82   *October 2020 - June 2023*
Honors: Cum Laude with Highest Honor in the Major.

EXPERIENCE

AMD (Advanced Micro Devices)   San Jose, CA
Software Engineer Intern: Internal Tools Team   *May 2024 - August 2024*

- Architected and developed a comprehensive dashboard using Python, Flask, Jinja2, and Javascript, which enabled Product Verification and Test Engineers to monitor test pattern health and device performance over time.
- Utilized asynchronous tasks from Celery to implement customized notification system for streamlined management of alerts and providing important insights to assist the users with better decision making.
- Optimized dashboard loading time from 13 seconds to 0.2 second by leveraging SQLalchemy and asynchronous data loading to streamline data queries and reduce response times.

University of Southern California   Los Angeles, CA
Machine Learning Research Intern: ASAP Lab   *September 2023 - May 2024*

- Conducted benchmarking on various state-of-the-art outlier detection algorithms to evaluate their performance on large textual documents by importing Python library PyOD.
- Utilized the Machine Learning library SkLearn to preprocess and label various datasets into a suitable format for analysis.
- Coordinated team workflow and completed a paper in IEEE format and presented it in front of live audience in class.

PROJECTS

Discord Bot   *August 2024 - Present*

- Developed a Discord bot using Discord.py to automate job search processes, integrating web scraping functionality to extract latest job postings from Simplify's GitHub repository
- Implemented custom commands allowing users to efficiently query recent job updates and track their application statuses
- Designed and integrated an SQLite3 database system to store and manage job listings and user application data, enhancing data persistence and retrieval efficiency

Be My Voice   *November 2024*

- Built an accessible tool for live ASL translation using OpenCV, MediaPipe, and TensorFlow, trained on custom ASL datasets.
- Enhanced translation with OpenAI's ChatGPT-3.5 Turbo for contextual understanding and improved user comprehension.
- Developed an interactive UI with Bootstrap and JavaScript, using Flask middleware to integrate live ASL detection.

Apex Legends Zone Prediction   *November 2024*

- Developed a ML model using TensorFlow and Keras to predict final zone locations in Apex Legends with 70% accuracy
- Implemented data preprocessing and feature engineering using pandas and sklearn to handle complex game data structures
- Employed TensorFlow's early stopping and custom callbacks to optimize model training and prevent overfitting

Moodify   *May 2024*

- Collaborated with teammates to develop Moodify, a standalone web service that uses the Google Gemini Pro Vision API to identify the theme and mood of uploaded photos, then suggests the top 10 songs that match accordingly.
- Integrated the Spotify API to ensure a smooth and secure login experience, allowing users to access Spotify's extensive collection of daily updated playlists.
- Utilized Reflex, a pure Python web framework, to develop a responsive and user friendly frontend and backend.

SKILLS

Languages: Python, MySQL, PostgreSQL, JavaScript, TypeScript, Swift, Kotlin, React Native, C, C++, Bash, Java, Go

Tools: Playwright, BeautifulSoup, Pandas, Numpy, MariaDB, Flask, Jinja2, Celery, Pylint, MyPy, ECharts, AJAX, jQuery, Agile Methodology, Docker, Express.js, Node.js, GIT, matplotlib, open3d, openGL

Courses: Geospatial Data Management, Database Systems, Analysis of Algorithms, Artificial Intelligence, Deep Learning, Probability and Statistics, Full Stack Development, Mobile Application, Web Scraping, and Computer Networks.