




Leo Tsunghan Lee

 : [linkedin.com/in/thl-leo/](https://www.linkedin.com/in/thl-leo/)  : github.com/THL-Leo  : thleo.co/

Email: ltlee@usc.edu Mobile: (949) 342-4240

EDUCATION

University of Southern California

Master of Science in Computer Science - Data Science

Los Angeles, CA

August 2023 - May 2025

University of California, Santa Cruz

Bachelor of Science in Computer Science, GPA: 3.82

Honors: Cum Laude with Highest Honor in the Major.

Santa Cruz, CA

October 2020 - June 2023

EXPERIENCE

AMD (Advanced Micro Devices)

Software Engineer Intern: Internal Tools Team

San Jose, CA

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

Machine Learning Research Intern: ASAP Lab

Los Angeles, CA

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

- Designed a Discord bot running on-prem using Discord.py and PyTest-Playwright library to scrape the latest available products on the Apple refurbished website.
- Features a user-friendly interface providing instant access to product names, prices, and images.
- Future implementation will include updates on the product list between each scrape with plans to host on a cloud server.

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.

ROS TimeAlign

January 2024

- Developed a Python script utilizing the rosbag library to efficiently merge and synchronize data from multiple source files, reducing the risk of data loss and data discrepancies.
- Applied advanced timestamp alignment techniques to precisely harmonize the temporal data generated by different sensors, improving the accuracy and consistency of the robotic data collected by the system.

SKILLS

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

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

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