Michael Lee

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Education

The University of Texas at Austin , M.S. in Computer Science   Aug 2024 – Current
- GPA: 4.0
- **Coursework:** Natural Language Processing; Deep Learning; Android Programming; Reinforcement Learning

University of California - Irvine, B.A.s in Business Economics and International   Sep 2018 - Jun 2022
Studies
- **Coursework:** Applied Econometrics; Managerial Economics; Statistics; International Business

Technologies

Languages: Python, JavaScript, TypeScript, HTML/CSS, SQL

Technologies: React, Vite, Redux, Express, Apollo, GraphQL, Django, Flask, Git, PostgreSQL, PyTorch, Kotlin, Supabase, Docker, SimPy, Streamlit

Experience

Full Stack Software Engineer, Apero Health (YC Startup) – San Francisco, CA   May 2023 – Jul 2023
- Designed and implemented a dynamic forms builder, enabling healthcare clients to generate HIPAA-compliant forms with ease
- Reduced legacy code duplication by 80% by overhauling the production frontend UI to use a centralized custom component library

AI and Data Science Intern, Nouryon – Houston, TX   June 2025 – Aug 2025
- Designed and developed a digital simulation for a multi national corporation's chemical manufacturing product line in Ningbo, China using years of historical data.
- Identified bottlenecks in the manufacturing process to recommend improvements and reduce costs.

Projects

Lister   github.com/WhirlyFan/Lister
- Built a full-stack clone of MyAnimeList with features for live chat, followers, anime lists, and reviews using JavaScript, React/Redux, Python, Flask, SQLAlchemy, and HTML/CSS
- Integrated a third-party API to retrieve and display detailed anime information
- Implemented real-time communication via web sockets to enable live chat between users

Breezy   Apr 2025
- Built an Android application in Kotlin based off Instagram. It allows users to do CRUD operations on posts, comments, likes, and messages.
- Backend utilizes Supabase to provide authentication, real time messaging, and PostgreSQL triggers and functions

SuperTuxKart Self Driving AI   Nov 2024
- Developed an AI for SuperTuxKart, a kart racing game, using three separate machine learning models to enable autonomous driving
- Implemented a multi-layer perceptron and a transformer model to process track data points, establishing the kart's relative position between lane borders
- Built a convolutional neural network to process game images, enabling the AI to drive using visual input rather than track data

Research

**Enhancing Natural Language Inference Robustness Through Adversarial   Dec 2024
Dataset Fine-Tuning**
- Investigated dataset artifacts in NLI models and fine-tuned an Electra-small model with adversarial datasets, achieving an 8.09% accuracy increase on out-of-distribution data, highlighting improved robustness and generalization.