Xijing Wang

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EDUCATION

Carnegie Mellon University ***School of Computer Science*** **Pittsburg, PA**
Master of Science: Automated Science *Aug 2025 - Spring 2027*
Reward & Honor: Dean's Scholarship

Santa Clara University ***College of Arts and Sciences*** **Santa Clara, CA**
Bachelor of Science: Major in ***Computer Science,*** Minor in **Economics** *Sep 2021 - Spring 2025*
Reward & Honor: REAL Program Scholar - Summer Research Internship

Language / Skills

Languages: Python, C++, Swift, JavaScript, Java, C++, Go, Scala, HTML/CSS
Mobile Development: SwiftUI, UIKit, React Native, Redux, Core Data, Vision Framework, Faiss, NLP, CV
AI / Machine Learning: TensorFlow, Pytorch, CoreML, Keras, OpenCV, NumPy, Pandas
Backend / Full-Stack: FastAPI, Node.js, Gin (Go), Firebase, SQLite, MySQL, PostgreSQL, SQLAlchemy
Architecture & Concepts: MVVM, RESTful APIs, Data Privacy, CI/CD, Data Structures, HPC, Test Automation

Experience

Machine Learning Engineer Intern | *Shell, Linux, Deep Learning, Data Analysis* **Santa Clara, CA**
LCCN Lab at Santa Clara University **May 2025 - July 2025**

- Fine-tuned **pre-trained deep learning models** including ResNet50, simple CNNs and Vision Transformers through rigorous **parameter tuning** for targeted visual neuroscience investigations, supported by **end-to-end data preprocessing pipelines** (normalization, augmentation, labeling).
- Conducted **in-depth feature-level analysis** of these tailored models, using Pearson correlation to quantify **representational similarity** and validate alignment with neuroscience hypotheses

Machine Learning Engineer Intern | *Shell, Linux, Deep Learning, Data Analysis* **Santa Clara, CA**
Real Program Summer Funding Opportunity in LCCN lab at SCU **June 2024 - Sep 2024**

- Developed and adjusted **Convolutional Neural Network (CNN) models** for testing neuroscience theories, including **Dataset Preprocessing** and **Parameter Tuning**.
- Preprocessed fMRI and anatomical data from online datasets and transferred to **WAVE HPC platform** using **Shell Scripting**.
- Analyzed research results, constructing **Correlation Matrices** using **Pearson Correlation**, and authored manuscripts detailing research findings and methodologies.

Paper accepted for **poster presentation** at **CogSci 2025** in San Francisco. Currently under review at Communication Biology.
https://doi.org/10.1101/2025.04.02.646903

Project

Food Recognition iOS App | *Swift, SwiftUI, Tensorflow, CoreML, Python*
https://github.com/xthomaswang/FoodRecogProj

- Built a **SwiftUI** iOS app using **MVVM** architecture, integrating a **TensorFlow**-trained **CoreML** model for food classification with **85%** accuracy across **100+ categories**. Optimized inference speed by **4×** and reduced memory usage by **40%** through model tuning and image augmentation on **50K+ samples.**

MasumiRanker: AI Agent Platform (Hackathon) | *Python, FastAPI, SQLite, Transformers, Faiss, React.js*
https://github.com/xthomaswang/Masumi_Hackathon_Whym_MasumiRanker

- Developed an **AI agent discovery platform** with **natural language semantic search** using **Sentence Transformers** and **Faiss** for **efficient similarity matching**. The **FastAPI** and **SQLAlchemy** backend managed agent cataloging, user ratings with automated aggregation, recommendation logging, and review data integrity via SHA-256 hashing.

EmojiAndEmotion | *React Native, SQLite*
https://github.com/xthomaswang/EmojiAndEmotion

- Architected a stable full-stack iOS app using **React Native**, **Redux**, and **SQLite**, optimizing data queries by **75% (200ms to 50ms)**. Integrated **Apple HealthKit** to analyze real-time **HRV** metrics with **98%** accuracy, and deployed automated tests covering **90%** of the codebase to accelerate bug detection by **60%**.