

# Yuliang(Leo) Chen

☎ 805-637-4650 | @ yuc204@ucsd.edu | 🌐 GitHub | 📁 Portfolio | 📍 San Diego, CA

## EDUCATION

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### University of California, San Diego

*M.S. in Data Science*

*GPA: 3.97/4.00*

San Diego, California

*Sep 2023 – Jun 2025*

### University of California, Santa Barbara

*B.S. in Statistics – Data Science | B.S. in Mathematics*

*GPA: 3.43/4.00*

Santa Barbara, California

*Sep 2018 – Jun 2022*

**Relevant coursework:** Design & Analysis of Algorithm, Distributed Computing, Advanced Machine Learning, Computer Vision, Natural Language Processing, Text Mining, Interpretable ML, Probability Theory, Linear Algebra, Mathematical Analysis, Stochastic Process Analysis, Time Series Analysis, Convex Optimization

## SKILLS

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**Languages:** C/C++, Python, SQL, R

**Technologies:** PyTorch, TensorFlow, Ray, Git, Docker, Kubernetes, Jupyter Notebook, OpenCV, MySQL,

## EXPERIENCE

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### MOSAIC Lab

*Research Assistant*

San Diego, California

*Mar 2024 – Present*

- Utilized self-supervised learning paradigms to develop foundational models for multivariate time-series data, enabling superior performance in various downstream tasks such as prediction, anomaly detection, and classification.
- Integrated large language models (LLMs) to significantly enhance the zero-shot and few-shot learning capabilities of foundational models, pushing the boundaries of model generalization and adaptability in low-data environments.
- Contributed to deploying foundational models on edge devices, including Jetson Nano, by optimizing computational efficiency and resource utilization to deliver high-performance AI solutions in resource-constrained environments.

### Micro Ingredients

*Supply Chain Analyst*

Montclair, California

*Oct 2022 – Sep 2023*

- Led a team of three to implement and deploy a Random Forest model for demand forecasting, achieving 83% accuracy and improving product availability by 27%.
- Collaborated with software engineers to establish a robust database system using Amazon RDS Aurora, utilizing web scraping tools for efficient data collection and storage, thereby facilitating comprehensive data analysis.
- Developed and deployed an interactive Python-based Streamlit dashboard, effectively transforming raw data into actionable insights and supporting strategic decision-making.

## PROJECTS

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### E-StyTR2: Efficient Image Style Transfer with Transformers | [GitHub](#)

*Spring 2024*

- Investigated various fusion modules based on StyTr2 to effectively blend style and content, evaluating their efficiency and aesthetic quality using quantitative metrics.

### Vivid Panels: Deep Neural Networks for Manga Colorization | [GitHub](#)

*Spring 2024*

- Explored fine-tuning pre-trained GAN-based models for manga colorization, highlighting the performance gains achieved by addressing distribution differences between task-specific inputs and pre-training data.

## **ViT: Vision-Topological Transformer for Medical Image Classification** | [GitHub](#)

*Spring 2024*

- Introduced the ViT model, strengthening Vision Transformer (ViT) with lightweight task-specific encoder and fusion layer, resulting in better performance with minimal computational cost.

## **Foundation Model On Retinal Images using Masked Autoencoders** | [GitHub](#)

*Fall 2023, Winter 2024*

- Developed foundation model for fundus image analysis using Masked Autoencoders (MAE) under the supervision of Professor Pengtao Xie.

## **Image-to-Image Retrieval with CLIP** | [GitHub](#)

*Winter 2024*

- Developed an image-to-image retrieval system using CLIP, demonstrating its superior ability to capture robust and generalized image representations compared to traditional CNNs like ResNet.