# Kimi Chen

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Data Science and Applied Mathematics student with research experience in reinforcement learning, computer vision, and prompt engineering seeking ML internship. Proven ability to build deep learning pipelines and deploy models.

#### **EDUCATION**

University of California, San Diego (GPA: 3.95) B.S. in Data Science and B.S. in Applied Mathematics

#### **TECHNICAL SKILLS**

Languages & Scripts: Python, C, C++, SQL, JavaScript, TypeScript, HTML, CSS, RegEx Machine Learning: PyTorch, TensorFlow, Scikit-Learn, OpenCV, HuggingFace Transformers, SpaCy Web Development: React, Node.js, Django Other Tools: Git/GitHub, Docker, Power Automate

#### **EXPERIENCE**

#### **Research Assistant**

Professor Zhiting Hu's Research Lab

- Built reinforcement learning based data pipelines generating 3M+ frame action pairs for training and testing our World Model on interactive game dynamics.
- Developed an evaluation pipeline specifically for the game side of the World Model to assess action output consistency, controllability, and interaction fidelity.
- Enabled vision language models (VLMs) to interact with and play both 2D and 3D games with our World Model, expanding AI capabilities in interactive gameplay.

#### **Computer Vision Lead**

Triton Unmanned Aerial Systems

- Led a team in rearchitecting the computer vision codebase (~100 Python/C++ files) into modular stages, cutting new model integration time from  $\sim 2$  days to <3 hours.
- Finetuned and exported a YOLO v11 computer vision model to ONNX, achieving realtime target detection on an embedded NVIDIA Jetson Nano during drone flight tests.
- Created an OpenCV based orthomosaic stitcher for high resolution panoramic maps.
- Collaborated with a multidisciplinary team (pilots, engineers) to integrate our vision system into the plane.

#### **Data Science Intern**

Lanner Inc.

- Designed gradient-boosted and time-series models that flagged cost anomalies with 96% precision and generated optimal reorder dates, accelerating supply-chain decisions.
- Introduced a Robotic Process Automation (RPA) pipeline for data organization tasks through Power Automate, reducing processing times by 70%.

#### Web Developer Intern

Silverline Educational Advisory Services

- Optimized website performance and SEO, achieving a 30 point improvement in Lighthouse test scores.
- Led CSS refactoring by transitioning to modular, maintainable, and scalable structures.
- Integrated a Content Management System (CMS) to enhance content updates and ensured seamless front-end display across devices.

#### **PROJECTS**

## **Disinformation Detection via Various Deep Learning Models**

- Consolidated multiple public fake news datasets and built a natural language processing (NLP) pipeline for bias word removal, lemmatization, tokenization, and sequence padding to create a balanced training corpus.
- Benchmarked LSTM w/ GloVe, DistilBERT, Llama 2, and GPT 4 Turbo in PyTorch, exposing a 40 percentage point gap between in domain (99% accuracy) and out of distribution (OOD) splits and showing GPT 4 Turbo outperform a human baseline collected from survey data.

### **Expected Graduation: Jun. 2028** San Diego, CA

# Apr. 2023 – Nov. 2023

May 2023 - Aug. 2023

Taipei, Taiwan

Taipei, Taiwan

#### Sep. 2024 – Present San Diego, CA

# Mar. 2025 – Present

San Diego, CA