Ruiyang Wang

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PROFESSIONAL SUMMARY Computer Science researcher and visual designer bridging High-Performance Computing with Generative AI. Proven expertise in optimizing scalable inference systems and analyzing human-AI interaction. Dedicated to engineering robust, creator-centric tools that operationalize artistic intent.

EDUCATION

California State Polytechnic University, Pomona | *B.S.* Expected May 2026

Computer Science, Minor Data Science

- GPA: 3.76/4.00 (President's Honor List)

Massachusetts Institute of Technology (MIT) x IDSS | *Professional Certificate* Feb 2025

- Data Science & Machine Learning: Making Data-driven Decisions (Remote)

RESEARCH EXPERIENCE

Cal Poly Pomona | *Research Fellow* Sep 2024 – Aug 2025

- Designed a modular deep-learning pipeline for network anomaly detection using the CIC-IDS2017 dataset.
- Parallelized forward-pass inference using MPI across 32 processes, achieving ~217x speedup vs. serial baseline.
- Benchmarked runtime scaling and memory usage; ensured output parity with PyTorch reference models.

Cal Poly Pomona | *Research Assistant (Engage Program)* Aug 2025 – Present

- Investigating the influence of Generative AI linguistic features on investor decision-making in equity crowdfunding.
- Analyzing archival Crowdcube data and designing preregistered behavioral experiments to measure credibility.

SELECTED TECHNICAL PROJECTS

Gen Z Slang Explainer (LLM Fine-Tuning) | *Project Lead* Oct 2025 – Dec 2025

- Developed an autoregressive model to explain slang by fine-tuning TinyLlama-1.1B using LoRA on 1.78k terms.
- Demonstrated transfer learning by generating context-aware explanations for unseen variations.

Energy Consumption Analysis (ITC 2025) | *Team Lead* Apr 2025

- Directed a team of 5 in analyzing utility energy trends using Random Forest Regressor and EDA.
- Presented data-driven cost-saving recommendations based on predictive usage patterns.

Wildfire Alert chatbot (Bronco Hackathon 2025) | *Team Lead* Apr 2025

- Led 4 to build a wildfire-alert chatbot integrating Gemini API (natural-language queries) and NASA FIRMS API

MIT Data Science Capstone Projects | *Student* Nov 2024 – Feb 2025

- Recommendation System: Built collaborative filtering models on 65K+ ratings; optimized for RMSE and precision@k.
- Conversion Classifier: Optimized ROC-AUC for customer conversion prediction; handled class imbalance via resampling.

LEADERSHIP & COMMUNITY

Chinese Students and Scholars Association (CSSA) | *Vice President* Jan 2024 – Present

- Developed a Python-based QR code registration tool, streamlining check-ins and data tracking for 500+ attendees.
- Managed official media accounts and created bilingual posters, mascots, and accessible infographics.
- Serve as representative at Chinese Consulate events, coordinating academic workshops and visa guidance.

LoopBreakers | *Founder & Team Lead* Apr 2025 – Present

- Founded a cross-disciplinary team for hackathons and IT competitions, fostering a culture of rapid prototyping and technical competition.

TECHNICAL SKILLS

Languages & Core: Python, Java, C, JavaScript, Kotlin, SQL
AI/ML Frameworks: PyTorch, Scikit-learn, MPI (mpi4py), Pandas, NumPy, Transformers (Hugging Face)
Tools & Cloud: Linux, Git, Docker, Azure, Jupyter, Power BI, Tableau
Design & Creative: UI/UX Design, Visual & Media Design (Digital/Traditional), Data Visualization