Yuan Chang

chang658@purdue.edu
+1 2626727673

Educational Background

Purdue University, West Lafayette, Indiana (Full-Time) **01/2025 – 05/2026 (In Progress)**

- MSECE in Thesis Track **Current GPA: 3.66/4.00**

Purdue University, West Lafayette, Indiana (Full-Time) **08/2019 - 12/2024**

- BSECE **Cumulative GPA: 3.53/4.00**

Related Course-Works

Computer Network System, Deep learning, Reinforcement Learning, Computer Security, Compiler Engineering, Intro-Digital System Design, OS X86, Embedded System, Signal Processing, Math & Stats & Probability, Formal Methods

Skills

Coding/Skills

- C#, Python, MATLAB, TensorFlow, Py-torch**,** System-Verilog, Assembly-RISCV, Micro-python, SAS, Java

Software & Hardware

- VS code, Docker, Antlr, Linux, PCB, Ki-Cad, GitHub, ESP32, STM32

Research Field of Interest

- Deep Learning & RL & LLM, Computer Network System, Embedded System

Work Experiences

AI-Intern at One Stop Warehouse **05/2025 – 07/2025**

- Full-time Intern at OSW Chengdu (renewable energy resale startup, OSW Australia branch) – Developed an AI agent for PDF-reading and analysis by fine-tuning a large language model with LoRa/QLoRa. Integrated it with existing company models into a multimodal service platform, then packaged and deployed the system using Docker with server-side API access.

Master Thesis Research

RL-Enhanced LLM Reasoning (Python) **08/2025 – Current**

I am greatly honored to work with Professor Xiaoqi (Danny) Chen at Purdue Network Research Lab on my Master's Thesis

RL-Enhanced LLM Reasoning – Applying GRPO-style reinforcement learning to LLMs on interactive text games (Minesweeper, Connect-Four, 2048, Othello) to strengthen multi-step reasoning and decision-making beyond standard supervised training.

Academically Oriented Researches

Computer Network System Course Project (Python). **01/2025 – 05/2025**

- Designed and evaluated networked systems across the stack, from a Dijkstra-based SDN routing simulator and custom TCP with advanced ACK/congestion control to BBA and RobustMPC (SIGCOMM'15) reimplementation for improved video streaming QoE

Reinforcement Learning Course Project (Java) **08/2025 – 12/2025**

- Applied PPO algorithm to solve Cart-Pole Swing-Up problem in Open-Gym, designed a trick of generating eight parallel environments with randomized starts and mini-batch SGD for stable, data-efficient training, with custom policy and advantage neuron networks implemented from scratch

Team Leader in Senior Design Project (Micro-Python) **08/2024 – 12/2024**

- Led a team of four to develop a daisy-chained IoT parking system using ESP32 nodes, ultrasonic sensors, and a Raspberry Pi server; designed the PCB, integrated hardware/software, and presented the project at Purdue's Spark Challenge

Honors & Awards

Dean's list & Semester Honors **Fall 2019, 2022, Spring 2021, 2022, Fall 2023 (Dean's list)**.

- Accomplish 12+ cumulative & 6+ semester credit hours & achieved a 3.5+ for both semester and cumulative GPA.

ECE Great Work Award (ECE General Merit Scholarships) **Fall 2023**

- 1000$ of scholarship for academic excellence in either Fall 2022 or Spring 2023

Acacia Fraternity Academic Excellence Merit Scholarship Award **Spring 2023**

- 200$ of scholarship for academic excellence in Spring 2023

ECE Summer Merit Scholarship Plus Tuition Aid **Summer 2022**

- 2000$ of scholarship plus tuition aid for summer courses

Languages

- Bilingual in both Mandarin (Native) and English (Fluent)

Leadership Experiences & Extra-curriculum

Acacia fraternity (Purdue University Chapter) **2019 – 2024**

Social Risk Management Team leader **08/2022 – 05/2023**

- Rushed the fraternity and had become a member since 2019.
- Led a small risk management team of 6-8 people and was responsible for risk monitoring of social events being hosted at the house once a week during the 2023 academic year.

Intramural Basketball & Soccer (Purdue University) **01/2023 – 05/2023**

Intramural Sports Co-Organizer and Team Leader

- Led two teams in over eight intramural basketball and soccer knockout tournaments hosted by the university, achieving top 8 and top 16 finishes among 32 teams.
- Led the team in the university's "Moonball Tournament" - a philanthropy basketball event - and interacted with top NCAA D1 bench players.