

Yuan Chang

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Educational Background

Purdue University, West Lafayette, Indiana (Full-Time)	01/2025 – 05/2026 (In Progress)
---- <i>The Elmore Family School of Electrical and Computer Engineering</i>	
• Master of Science in Electrical & Computer Engineering	Current GPA: 3.66/4.00
Purdue University, West Lafayette, Indiana (Full-Time)	08/2019 - 12/2024
---- <i>The Elmore Family School of Electrical and Computer Engineering</i>	
• Bachelor of Science in Electrical & Computer Engineering	Cumulative GPA: 3.53/4.00

Related Course-Works

Computer Network System, Artificial Intelligence, Computer Security, Data Structure & Algorithm, Advanced C, Python for Data-Science, Intro-Digital System Design (System-Verilog), OS X86 & RTOS, Micro-Processors & Interfaces, Software for Embedded System, Basics of Electronics & Circuits, Signal Processing, Math & Stats & Probability

Skills

Coding

- C, Python, MATLAB, FPGA & System-Verilog, Assembly-RISCV, Micro-python, SAS

Software & Hardware

- VS code, Docker, Linux, Breadboard Circuit Design (PCB), Ki-Cad, Microsoft Office, GitHub, ESP32, STM32

Other Developing Skills & Field of Study

- Deep Learning & Reinforcement Learning, Embedded System & Software, IoT, Computer Network System, OS, Cryptography, Compiler Engineering

Work Experiences

AI-Intern at One Stop Warehouse Chengdu China	05/2025 – 07/2025
• Full-time Intern at OSW Chengdu – the startup branch of OSW Australia, a renewable energy resale company. Developed an AI agent by fine-tuning an LLM with LoRA/QLoRA for PDF-reading tasks, integrated with YOLOv11. Packaged and deployed the unified system via Docker with server-side API access.	

Academically Oriented Research Experiences

Computer Network System Individual Course Project (Python)	01/2025 – 05/2025
• Designed a routing system using Dijkstra's algorithm and routing tables; simulated convergence in a Software-Defined Network (SDN)	
• Implemented a custom TCP protocol with sliding window, supporting both selective and cumulative ACKs, optimized congestion control and throughput	
• Reimplemented the BBA and RobustMPC bitrate algorithms from SIGCOMM'15 and optimized video streaming using QoE metrics	
Artificial Intelligence - Computer Vision Individual Project (Python)	08/2024 – 12/2024

- Implemented the Scaled-YOLOv4 for embedded systems with a custom training pipeline. Evaluated performance across video qualities and collaborated with a UAS team to deploy real-time detection on a drone (project ongoing).

Team Leader in Senior Design Project (Micro-Python)

08/2024 – 12/2024

- Led a team of four to develop an IoT-based parking system using ESP32, ultrasonic sensors, and a Raspberry Pi server. Designed the PCB, integrated hardware, and built software. Presented at Purdue's Spark Challenge.

Network Security Hands on Research Experiences (Python)

01/2024 – 05/2024

- Reimplemented various encryption & decryption algorithms (DES, AES, SHA512) to process sample data.
- Simulated buffer overflow and DoS (Denial-of-Service) attack on a remote Linux server for penetration testing.

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

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.

Extra-curriculum & Others

Musical Instrument & Sports

- Certified Professional Piano Player (National Certificate Level 6 / 10)
- Certified Professional Chinese Traditional Musical Instrument SuoNa Player (National Certificate Level 8 / 10)
- Active in Basketball, Soccer, Badminton, Golfing, and Amateur Body Building