

# Yuan Chang

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## Educational Background

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

## 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

### 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 & RTOS, Cryptography, Compiler Engineering

## Work Experiences

<b>AI-Intern at One Stop Warehouse Chengdu China</b>	<b>05/2025 – 07/2025</b>
• 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

<b>Computer Network System Individual Course Project (Python)</b>	<b>01/2025 – 05/2025</b>
• 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	
<b>Artificial Intelligence - Computer Vision Individual Project (Python)</b>	<b>08/2024 – 12/2024</b>

- 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