Yunxing Tao

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EDUCATION

Concordia University   *2025-2026 (Expected)*
Master of Engineering – Electrical and Computer Engineering

Chengdu University of Technology
09/2020- 06/2024
Bachelor of Engineering – Internet of Things Engineering
<u>Core Courses:</u> Embedded Systems Design, Wireless Sensor Networks, Operating Systems, C Programming, Java Programming
          Database Systems (MySQL),etc.

RESEARCH EXPERIENCES

✦ **Routing and Switching Network Design**
  05/2022 – 06/2022
- Designed a LAN connecting Beijing and Shanghai; configured IP addresses, router ports, and VLANs on switches.
- Researched and implemented OSPF routing protocol on a simulated network platform.
- Collected experimental data, analyzed routing results, and wrote a technical report.

✦ **Microcontroller System Design**
  12/2022 – 01/2023
- Built a system using 51/52 microcontroller and a pressure sensor, utilizing ADC0832 for analog-to-digital conversion.
- Simulated circuits in Proteus and transitioned to PCB production.
- Programmed system functions in C and tested sensor output visualization.

✦ **ATM Simulation System Development**
  07/2023 – 09/2023
- Developed a simulated ATM system in Java; responsible for deposit and withdrawal modules.
- Designed user interaction workflows and implemented data storage using arrays.
- Created presentation slides and conducted live demonstrations of system features.

✦ **Smart Agriculture System Based on STM32**
  01/2024-02/2024
- Designed a smart agriculture system integrating light and humidity sensors to automate irrigation and pest control.
- Implemented environmental sensing with STM32 microcontroller and activated actuators (e.g., water valves, buzzers) based on sensor input.
- Used Keil for firmware development; collaborated with external vendors to fabricate custom PCBs.
- Presented project results to faculty members as part of final undergraduate thesis defense.

✦ **University News Text Classification Based on NLP**
  02/2024-06/2024
- Designed and implemented a BiLSTM-based text classification model to categorize university news articles with high accuracy.
- Collected and preprocessed 1,500+ articles via Python web scraping; applied tokenization and word vectorization for model training.
- Compared machine learning models (Naive Bayes, SVM) and optimized BiLSTM parameters for best performance.

WORK EXPERIENCES

☞Online Tutoring Instructor **Zuoyebang (Chongqing, China)**   *07/2024 – 09/2024*
- Provided one-on-one and small group tutoring sessions in mathematics and science for high school students via online platforms.
- Adapted teaching methods to suit students' learning styles, improving engagement and academic performance.
- Created customized lesson plans and practice materials aligned with national curriculum standards.

EXTRACURRICULAR ACTIVITIES

☞ **Freshmen Welcome Party Planning & Promotion**   *09/2020*
- Served as class cultural committee member; led event planning and coordination.
- Edited and produced promotional videos to boost student engagement.

SKILLS & INTERESTS

- **Technical Skills:** MATLAB, python（2 yrs）, PS，PR, WPS office
- **Languages:** English (Proficient), Mandarin (Native), French (Basic)