Emily Tumacder ☆ ❀ 🐱 🐱

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EDUCATION

PURDUE UNIVERSITY   W. Lafayette, IN
August 2023 ~
May 2027

B.S Computer Engineering, Minor in Statistics and Mathematics – Honors Goss Scholars
- **GPA**: 3.82
- **Specialization**: Computer Systems

WORK EXPERIENCE

ELECTRICAL ENGINEERING INTERN   Paris, TX
May 2025 ~
May 2026

Kimberly-Clark
- Designing a Python (pygame) simulation for operations training, focusing on scalability and optimization through multithreading and OOP principles
- Developed construction packages detailing upgrades for various use cases of PowerFlex VFDs - hardware/wiring (AutoCAD), safety modules, PLC program changes (RSLogix)
- Used Splunk (SPL) to troubleshoot 100+ network switch statuses during capital projects and build documentation for plant wide network devices

COMPUTATIONAL LINGUISTICS RESEARCHER   W. Lafayette, IN
January 2024 ~

Undergraduate Research Assistant (NLP); Advisor - Dr. Yan Cong
- Designing an LLM-based tool for automatic aphasia detection through prompt engineering and fine-tuning of Llama 3.2-1B chatbot
- Extracted and organized examples of speech from a database of 50k+ annotated lines of patient conversational data using Python (pandas)
- Presented at the Purdue Undergrad Research Symposium and invited for a research talk to students in course LJNG398 (see emtinside.github.io)

CS159 TEACHING ASSISTANT   W. Lafayette, IN
January 2024 ~
December 2024

Purdue University
- Facilitated lab sections with 27 students, open office hours with 20+ students at once
- Provided in-depth feedback on homework and lab assignments to improve student performance

PROJECTS

BENCHTOP BUDDY (BiBi)   October 2025
- Building an autonomous desktop cleaner using the Purdue Proton board
- Designing wiring (KiCAD) to distribute power and connect peripherals
- Implementing SPI communication between IR sensors and other peripherals, PWM control to allow for edge and obstacle detection

SMART BOTTLE   December 2023
- Program micro::bit to receive feedback from a load cell and measure the amount of water drunk across an interval of time, sending visual reminders to users on an LED screen
- Decreased % error of volume measurements to a 1-5% range by improving model weights

SKILLS

Languages: Python, C, SystemVerilog, Java, SQL, HTML/CSS, MATLAB
Tools: AutoCAD, KiCAD, ControlLogix, Splunk