

LOUIS TAN

+1 (623) 275-6917 ◇ louistan@purdue.edu ◇ linkedin.com/in/louis-tan-zh ◇ Seeking Internship Summer 2025

EDUCATION

Purdue University Main Campus, College of Science, *West Lafayette, IN* **Aug 2022 - Dec 2025**
Bachelor of Science in Computer Science and Artificial Intelligence (Double Major) GPA: 4.0/4.0

- 4x Dean's List and Semester's Honors; John Martinson Honors College; Peer Consultant at Center of Career Opportunities
- Recipient of highly selective Intel Andy Grove Scholarship; Corporate Partners Scholarship 2024; XTern 2023 Semi-Finalist
- **Relevant Coursework:** Compilers, Computer Security, Data Structures and Algorithms, Human-Computer Interaction, Computer Architecture, Systems Programming, Competitive Programming, Object-Oriented Programming

PROFESSIONAL EXPERIENCE

HAMMOQ Inc., Software Engineering Intern, *Tempe, AZ* **May 2024 - Aug 2024**

- Developed a comprehensive automated testing framework that simulates both hardware and software components, leading to the identification of a critical software bug in conveyor camera save operations during high-volume image capture.
- Reduced software deployment time from 5 hours to just 20 minutes with NSIS, Powershell, and Python, transforming the process from requiring skilled engineers to being manageable by technicians.
- Engineered Make build toolchain that cross-compile code from Linux to Windows for easy creation of NSIS installers.
- Traveled to customer locations to assemble and train operator teams on the usage and maintenance of HAMMOQ systems.

Renzo Box, Corporate Partners Software Intern, *West Lafayette, IN* **Aug 2022 - May 2023**

- Utilized Python and BeautifulSoup to scrape product data from both static and dynamic beauty websites to populate Renzo Box's product recommendation engine (RenzoMatch) with crucial data.
- Developed algorithm employed by RenzoMatch to flag invalid selfies and calculate skin tones with 3 point matching.

RESEARCH EXPERIENCE

AI Cybersecurity Research Lab, Student Researcher, *West Lafayette, IN* **May 2024 - Present**

- Reverse engineer compiled x86 binaries to identify malicious code and perform force execution to confirm behavior.
- Develop automated methods to discover malicious code sections using LLM and other ML tools.

Purdue Libraries, Undergraduate Researcher, *West Lafayette, IN* **May 2023 - Aug 2023**

- Pitched and built a semi-automated data collection pipeline to eliminate repetitive and tedious work using Python, Selenium, Bash, lxml, and Google Cloud (Google Sheets API), resulting in up to 400% increase in productivity.
- Scraped, compiled, and verified over 5,000 rows of data from 150 universities about their Data Science curriculum, which is used to identify potential improvements for Purdue's Data Science curriculum.

LEADERSHIP ACTIVITIES

Quantum Student Organization (QSO), Social Media and Tech Lead, Founding Officer **Aug 2023 - Present**

- Organize highly effective campus-wide advertisement campaign that reached thousands of people through 30+ campus TVs, departmental newsletters, etc., resulting in consistently high turnout at QSO-organized and QSO-partnered events.
- Create social media content, curate weekly newsletters, and utilize tabling events to spread awareness of quantum computing.
- Build website using HTML, CSS, and ReactJS to provide a one-stop platform to learn about QSO and quantum computing.

RELEVANT PROJECT

SimpleC to x86 Assembly Compiler, Purdue CS 250 Computer Architecture **May 2023 - Aug 2023**

- Instructor-endorsed answerer while taking the class; nominated to be the TA for the class for Fall 2023

SKILLS

Technical Skills: C, C++, Java, Python, NSIS, Matplotlib, x86 Assembly, Linux, Bash, Powershell, Lex + Yacc, Unix Shell, HTML, CSS, JS, ReactJS, R, Pandas, LaTeX, Google Cloud (Google Sheets API), lxml, XPath, Selenium, Conda, OpenCV, Octave (similar to MATLAB), Photoshop, Premiere Pro, Agile Methodology

Language Skills: English, Simplified Chinese, Traditional Chinese, Minnan, Malay