

JINGTIAN HU

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EDUCATION

University of Toronto <i>BSc: CS/ Data Science Double Specialist — Arts & Science Internship Program</i>	Aug. 2024 - Present Toronto, Ontario
<ul style="list-style-type: none">• cGPA: 4.0/ 4.0• Received International Merit Admission Award: total worth of \$50,000• Relevant coursework: STA130 An Introduction to Statistical Reasoning and Data Science, CSC207 Software design, CSC258 Computer Organization	
Downing College Cambridge <i>Certificate Course - Computer Science - graded A+</i>	Aug. 2023 – Aug. 2023 Cambridge, England

EXPERIENCE

City University of Hong Kong - CALAS <i>Exchange Research Intern - Supervised by Prof. Ray C.C. CHEUNG</i>	June. 2025 – Aug. 2025 Hong Kong, China
<ul style="list-style-type: none">• Built an RV32I softcore (a CPU based on RISC-V architecture) from scratch using High Level Synthesis (HLS) on PYNQ-Z2.• Inserted a JPEG decoder to PYNQ-Z2 base overlay to process videos stored in MJPEG format which boosted processing speed twice compared to the ARM processing system.• Developed a mono-tasking programmable system running on a bare-metal ARM that incorporates an editor, BF interpreter, and machine code parser.	

EXTRACURRICULAR ACTIVITIES

UT Chinese Students and Scholars Association <i>Director of Campus Focus</i>	May. 2025 – Present Toronto, Ontario
<ul style="list-style-type: none">• Facilitated communication between UTCSSA and UofT• Organized Campus Focus members to analyze data to understand member-wise participation for awarding• Led a web project for managing resources, logging members' participation, and automating requests and Co-Curricular Record report generation	
New College, University of Toronto <i>Jr. House Representative</i>	Sept. 2024 – May. 2025 Toronto, Ontario
<ul style="list-style-type: none">• Served on the New College Dining Committee as a student representative, advocating for student feedback and contributing to 3 improvements in future meal plan mode and pricing.	
STEM Club at MLIA-SZ <i>Cofounder</i>	Since Sept. 2022 Shenzhen, Guangdong
<ul style="list-style-type: none">• Developed and delivered Arduino workshops to 10 students, teaching fundamental electronics and programming concepts and enabling them to build their own projects.• Designed and constructed a functional RC boat using IR sensors and motors, demonstrating practical application of engineering principles and problem-solving skills.• Organized and managed a remote-control boat racing competition for 8 participants, fostering teamwork, friendly competition, and showcasing student projects at the end of the semester.	

PROJECTS

Enterprise Resource Planning Platform — <i>Django, Bootstrap + vanilla Javascript, gunicorn + docker a web enterprise resource planning platform</i>	Oct. 2024 – Present
<ul style="list-style-type: none">• Being tested right now by a group of 20 executives in the association. The system is planned to be used by 100+ members. Undergoing iterations every two weeks for improvements,• Implemented an event and job approval and log system with feedback workflow,• Members create profiles so that UTCSSA can smoothly collect the necessary data required for their school recognition credit application to increase association efficiency by an estimated 50% and record member participation fairly.	
Vodka — <i>Django REST, React, Google Gemini AI, SQLite, VPS Winner, Best Domain Name - NewHacks 2025</i>	Nov. 2025
<ul style="list-style-type: none">• Developed a full-stack AI travel platform with an interactive 3D globe (React) and a RESTful API backend (Django),• Engineered the API to sync AI-generated itineraries between the web platform and a companion mobile ledger app,• Implemented a key Gemini AI feature to parse receipt photos, automatically generate expense entries, and allow users to split bills.	
MIDI parser — <i>Python a parser for MIDI playback</i>	Nov. 2025
<ul style="list-style-type: none">• Developed a Python parser by interpreting the MIDI technical specification to extract musical events from binary files,• Engineered a robust solution to handle protocol details, including "Running Status" and non-standard SysEx messages,• Project was created to translate complex MIDI files for use in a MIPS simulator for a University of Toronto Computer Organization (CSC258) course.	
Easy Comm — <i>asyncio, socket, tkinter, openssl a low-level, secure, and extremely performant software</i>	Jan. 2025
<ul style="list-style-type: none">• Achieved efficient, low-level, secure communication with TCP sockets on TLS,• Accomplished a user-friendly GUI client and a command line help manual with tkinter,• Implemented efficient concurrent server design with asyncio so that 1000+ people can chat at the same time while the software is run on a single core (tested by spawning 1000 threads sending messages to each other)	

AWARDS

University of Toronto - Summer Research Exchange Program (SREP) <i>Funding for successful nominees - awarded with \$3000 CAD</i>	May. 2025 Toronto, Ontario
University of Toronto - Capture The Flag <i>3rd. place within UoT division, awarded with \$100 CAD</i>	Jan. 2025 Toronto, Ontario
Canadian Computing Competition (Junior) <i>Perfect score: 1st in the Honor Roll</i>	Nov. 2022 – Feb. 2023 Shenzhen, Guangdong

SKILLS & INTERESTS

Skills: Python (Django REST, NumPy, Requests, Tkinter), Java, C, JavaScript, R, SQL, HTML, Clean Architecture, Prompt Engineering
Tools & Languages: Git, Docker, Linux, Nginx, Cloudflare, Postman, Copilot, Claude Code — English (Fluent), Mandarin (Native)