

Jason Zhang

(437) 217-1177 | jasonrx.zhang@mail.utoronto.ca | [linkedin.com/in/jason-ruixuan-zhang](https://www.linkedin.com/in/jason-ruixuan-zhang)

EDUCATION

University of Toronto

Sep. 2022 – Apr. 2026 (expected)

Bachelor of Applied Science, Computer Engineering

Relevant courses: Programming Fundamentals (C/C++), Digital Systems (Verilog), Engineering Strategies and Practice

EXPERIENCE

Undergraduate Research Assistant

May 2023 – Aug. 2023

Institute of Biomedical Engineering

Toronto, ON

- Assessed the impact of the Discovery program on engineering graduate students' pedagogical skills
- Conducted manual and automated thematic analysis using applied natural language processing models (NLP) through **NLTK**, **pandas**, and **Matplotlib** in Python; led interviews with graduate students
- Supervised by Prof. Dawn Kilkenny; poster dissemination at **two research conferences**, winning best overall project award out of 150 presenters at the Undergraduate Engineering Research Day

Teaching Assistant

Jul. 2023 – Aug. 2023

University of Toronto, D.E.E.P

- Assisted instructors in teaching university-level material in the Da Vinci Engineering Enrichment Program for the **Computer Vision and Data Analytics** and **Introduction to Electromagnetic Theory** courses
- Taught foundational use of Python libraries like **NumPy**, **Pandas**, **PyTorch**, **Matplotlib**, and electronic test equipment like oscilloscopes and function generators in workshops and course projects
- Facilitated class discussions and student understanding of course material to develop course projects

Project Manager

Jan. 2023 – Apr. 2023

University of Toronto

- Formulated and designed a new commuter student space at Chestnut Residence with a team of 6; liaised with an industry client, Dr. David Kim of the Division of Spaces and Experiences
- Defined **50 pages** of **conceptual design specifications** with implementation of engineering estimation models and simulations; design is accessible, cost-conscious, and safety-focused

Event Coordinator

Aug. 2022 – Nov. 2022

Kurius Initiative

Montréal, QC (remote)

- Led a team of 3 to organise hackathons, learnathons, and university fairs aimed at high school and CÉGEP students, attracting a cumulative **200 participants**
- Conducted outreach with industry professionals in engineering and computing to attract more than **25 panellists**

PROJECTS

TwitterWD | *JavaScript, SPARQL*

Jun. 2023 – present

- Browser extension rebuilding the Twitter verification system using publicly accessible data on Wikidata
- Modifies the browser DOM and removes paid elements on Twitter's web page
- Implements **SPARQL queries** of the Wikidata database and retrieves data to verify notable subjects

Chemical Vehicle | *Arduino, Django*

Oct. 2022 – present

- Built circuitry and programmed an **Arduino** for the University of Toronto Chemical Vehicles (UTCv)'s 2023 competition car, winning a regional competition in Montréal
- Currently building a **Django** web application to visualise and model chemical data in a human-readable way

TECHNICAL SKILLS

Languages: C/C++, Python, MATLAB, Verilog, Java, HTML/CSS, SPARQL

Frameworks/Libraries: Django, NumPy, pandas, Matplotlib, NLTK

Tools: Git, MediaWiki, Linux, Quartus Prime, ModelSim