

Yiyi Xu

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EDUCATION

University of Toronto — Faculty of Applied Science and Engineering

Toronto, ON, CA

B.A.Sc. in Engineering Science + PEY Co-op | Major in Robotics, Minor in AI

Expected Graduation: April 2027

- **GPA:** 3.54/4.0, Dean's Honours List
- **Activities:** Phi Gamma Delta Fraternity, Intramural Volleyball, UTMUN Director, St George Capital Project Lead
- **Relevant Coursework:** Data Structures & Analysis, Computer Algorithms & Data Structures, Intro to AI, Intro to Learning from Data, Digital & Computer Systems, Microprocessors & Embedded Microcontrollers, Probability & Statistics

SKILLS

Programming Languages: Python, Java, C, JavaScript, TypeScript, MATLAB, SQL, SystemVerilog, RISC-V, R

Technologies: Git, Bash, HTML, CSS, React/React Native, MySQL, Vercel, Supabase, Pandas, Matplotlib, Numpy, Streamlit

Applications: Autodesk Fusion 360, SolidWorks, OnShape, \LaTeX , MS Office Suite (Word, Excel, PowerPoint, Teams)

EXPERIENCES

Bosda International

May 2025 – August 2025

Software & Data Engineer Intern | Python, TypeScript, MySQL, React, OpenAI API

Aurora, ON, CA

- Leading development on a full-stack platform for managing ~5000 engineering drawings using TypeScript, Python, and MySQL; reducing data entry time by 45% by integrating OCR-based dimension extraction and a human-in-the-loop labeling workflow, enabling non-technical users to tag key dimensions and auto-import into the database
- Accelerated vehicle part compatibility analysis time by 75% per part for ~1500 parts, by engineering a Python-based Selenium automation pipeline that dynamically scraped and parsed fitment data across complex UIs
- Built a semi-automated customer service system using Python and OpenAI API to handle inquiries across 3 e-commerce stores, reducing manual workload and supporting \$1,000,000+ CAD in annual recurring revenue
- Harnessed AI and LLMs to 10x personal productivity, automating research, data handling, and documentation to independently ship projects that would typically require a team of interns

PwC (Advisory)

June 2024 – August 2024

AI & Data Consulting Intern | PowerPoint, Excel, Python, SQL

Shanghai, China

- Prototyped an in-house BI software using Python and MySQL, achieving up to 15% reduction in data retrieval time and researching Chinese LLMs (ChatGLM, Baidu, Alibaba, Tencent) to identify the most suitable model for integration
- Designed an AI+Data+CRM-aligned system for Pfizer's proposed migration of ~200,000 user entries and 20,000+ hospital records, researching CRM, MDM, and Data Lake solutions while ensuring compliance with China's PIPL regulations
- Authored project handoff documents for a data valuation tool designed for datasets exceeding ¥1,000,000 RMB in value

FIRST Robotics Competition Team 610

January 2022 - April 2023

Head of Strategy, Robotics Software Engineer | Java, OOP, GitHub, Excel

Toronto, ON, CA

- Won international finalists' award at the FIRST World Championship
- Led a 35+ member team as Head of Strategy, building a robot for the First Robotics Competition (2022-2023)
- Programmed 5 robot subsystems with Java and WPILib, applying Object-Oriented Programming principles to create singleton pattern code for real-time control
- Developed 30+ commands and optimized 8+ autonomous routines by implementing PID control and integrating sensors, utilizing OOP for efficient process handling and decision-making logic within the robot's control framework

PROJECTS

Freshify | Python, React Native, TypeScript, OpenAI API

March 2025

- Built an AI-powered mobile app projected to reduce household food waste by up to 15%, using GPT-4o image recognition to scan grocery receipts and item photos
- Developed AI backend and scanning system, automating expiration tracking for 1000+ items and generating recipes to save users \$300-\$1,600/year in groceries

Housing Proximity to Amenities in the US | Python, ArcGIS, \LaTeX

October 2022 - January 2023

- Won 1st place out of 160 teams in a national Big Data Challenge and submitted for publication
- Spearheaded data collection by simple random sampling 163 counties from 1,936 available on OpenAddresses and stratified random sampling 1,630 unique addresses to enable analysis of housing proximity to amenities with educational attainment and demographic relationships
- Co-authored a statistics research paper in \LaTeX on the topic and presented to sustainable development experts and government officials