# Zhanxu Ye

*Honours Computer Science Co-op Student*

647-834-9930
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Zhanxu Ye
https://github.com/Zhanxu-2003


## HIGHLIGHTS OF QUALIFICATIONS

- Currently enrolled in level 3 of the 5-year Honours Computer Science co-op program at McMaster University
- Accumulated four months of co-op experience at an industry-leading company, enhancing project management, teamwork, and leadership capabilities.
- Skilled in using the Django framework for backend development, enhancing the security and user account management of web applications.
- Utilized Jupyter Notebook and pandas for the analysis of large datasets, extracting key information for data-driven decision-making.
- Possess a diverse skill set, adept at advanced language processing and data retrieval using OpenAI API and Serp API, integrated with LangChain for effective workflow automation.

## EXPERIENCE

**Software Developer Co-op** | **Lootom Telcovideo Network, Wuxi, China** | **June - August 2023**
**Link to Certifications**

- Participated in the back-end development of an online shopping mall using Python and Django, focusing on user account functionalities including registration, login, password encryption, and security verifications.
- Developed the product management module, handling product listings, inventory tracking, and categorized browsing.
- Designed and implemented a user behavior-based product recommendation system, using Python for data analysis and Django for back-end logic.
- The system provides real-time, personalized product suggestions by analyzing users' browsing history, purchase records, and preferences.

**Remote Data Analysis Co-op** | **Huijue Network, Shanghai, China** | **September - October 2023**
**Link to Certifications**

- Focused on using Python and its Pandas library for data analysis, supporting data processing and research projects.
- Primarily used Jupyter Notebook for developing data processing scripts, responsible for data cleaning, transformation, and aggregation, building an automated data preprocessing workflow to support in-depth analysis.
- In close collaboration with the remote team, with weekly online meetings, I proactively led the integration of data analysis results, ensuring seamless data flow across workflows, thereby enhancing cross-departmental project collaboration efficiency.

## SKILLS

| | |
|---|---|
| **Front - End:** | HTML CSS JavaScript TypeScript Elm |
| **Back - End:** | Python Java C Go MySQL Haskell Prolog |
| **Frameworks:** | Django LangChain |
| **Graphic Programming:** | OpenGL Processing |
| **API Integration:** | OpenAI API Serper API Hugging Face Hub API |
| **Others:** | Linux Latex Jupyter Notebook Markdown |

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## EDUCATION

| | | |
|---|---|---|
| Bachelor of Applied Science, Honours Computer Science | **Mcmaster University, Hamilton ON** | **September 2021 - April 2025** |

- Received the Mcmaster entrance scholarship for an 97% grade-point average in high school.

## PROJECTS

**Algorithm Design and Urban Traffic System Application** Link to Demo Link to Analysis Link to GitHub

- **Performance Analysis:** Evaluated and analyzed shortest path algorithms for efficiency by using Python.
- **Algorithm Benchmarking:** Developed and compared A* to Dijkstra's, noting situational benefits.
- **Transit Optimization:** Enhanced London Underground routing and efficiency with algorithms.
- **Codebase Refactoring:** Improved a project's maintainability and scalability with UML standards.

**Personal Finance Analytics Suite** Link to Demo Link to GitHub

- **Unified Dashboard:** Crafted a dashboard for at-a-glance views of financial activity, spending breakdowns, and trends.
- **Expense Tracking:** Implemented a user-friendly web application for efficient financial tracking and literacy.
- **Back- end Excellence:** Leveraged Django and Python for powerful back-end integration and processing.
- **Adaptive Interface:** Engineered a responsive design with HTML and CSS for cross-device compatibility.

**Intelligent Report Analyst** Link to Demo Link to GitHub

- **AI Integration:** Leveraged OpenAI and Serp API for language processing and data retrieval, orchestrated by LangChain and Python.
- **Intuitive Design:** Built a swift search interface for topic analysis and newsletter summarization.
- **Streamlined Automation:** Implemented extraction of essential details, crafting tailored summaries and newsletters.

**Stock Market Data Analysis** Link to Demo Link to GitHub

- **Project Leadership:** Guided a stock market analysis using Python and Jupyter Notebook for complex data processing.
- **Data Handling Expertise:** Utilized pandas for adept manipulation and exploration of large datasets.
- **Analytical Insights:** Examined the correlation between stock price fluctuations and daily returns, uncovering key market trends.