

# Eric Xie

416-838-4938 | ✉ pexie@uwaterloo.ca | in linkedin.com/in/ericcxie | GitHub github.com/ericcxie | 🌐 ericxie.ca

## TECHNICAL SKILLS

---

**Languages:** Python, Javascript, Typescript, C/C++, SQL

**Frameworks/Libraries:** React.js, Flask, Redux, Node.js, Express.js, Next.js, Pandas, Tailwind CSS

**Developer Tools:** PostgreSQL, AWS, MongoDB, Firebase, SQLite, Docker, Jupyter Notebook, Git

## EDUCATION

---

**University of Waterloo**

Sep. 2022 – Apr. 2027

*Bachelor's of Computer Engineering, Co-op*

Waterloo, ON

- Courses: Data Structures and Algorithms, Object-Oriented Programming, Linear Algebra, Discrete Math

## EXPERIENCE

---

**BMO Financial Group**

Sep. 2023 – Present

*Software Engineer Intern*

Toronto, ON

- Developed and deployed RESTful APIs for an OCR-based tagging platform using **React**, **Flask**, and **AWS Lambda/S3**, achieving a **30%** reduction in integration/training time of machine learning models
- Implemented AES encryption in **PostgreSQL** database using **Python** and **AWS KMS** for sensitive banking/personal data, ensuring **100%** security compliance and mitigating potential data breaches by **60%**
- Integrated client-side caching using **Redux** to manage component states and AWS Textract OCR retrieval results, reducing server load by **10%** and improving page load times by **25%**

**Brookfield Annuity**

Jan. 2023 – Apr. 2023

*Software Developer Intern*

Toronto, ON

- Built internal pricing tools by leveraging **Python**, **Pandas**, and **NumPy** to streamline bid preparation, resulting in a **60%** reduction in turnaround times for contract bidding process
- Spearheaded the development of a mail merge application to populate required bid documents and slide decks, automating a **30+ minute** manual process to provision contract deal requirements
- Designed and overhauled an intuitive bid preparation dashboard using Tkinter to replace legacy CLI-based process; adopted by **45%** of the organization and obtained a **99%** task success rate

## PROJECTS

---

**OptiWealth** 📄 | *React.js, Typescript, PostgreSQL, Flask, Python, Firebase*

Sep. 2023 – Present

- Developed an all-in-one investment management platform, enabling users to monitor, analyze, and rebalance their portfolios to align with their asset allocation target based on risk tolerance/financial goals
- Architected a financial REST API within **Flask** to facilitate communication between PostgreSQL database and the client-server to deliver retrieval and update operations for user portfolio data
- Designed a seamless portfolio upload process using **Tesseract OCR** and Pandas to extract asset data from financial statements in either CSV or image formats

**CollaboraCart** 📄 | *React.js, Flask, Tailwind CSS, SQLite*

Oct. 2023

- Designed and built a platform that matches small businesses together to harness collective bulk buying power and achieve optimized per-unit costs on supplies
- Engineered a matching algorithm using **Python** designed to find the best matches among small businesses based on item needs, industry, and location, ensuring optimal cost benefits for every paired transaction
- Developed a comprehensive backend system using Flask and **SQLite** that streamlines registrations, order requests, and executes matching operations, ensuring a fluid user experience and efficient database management

**PomoDuo** 📄 | *React.js, Node.js, Express.js, Firebase, Socket.IO*

Apr. 2023

- Built a group study room platform using React.js and **Firebase** that allows users to generate/share room codes to join a Pomodoro timer study session
- Integrated bidirectional real-time communication using **Socket.IO** to enable concurrent timer functionality, resulting in **30%** increase in session completion rates
- Implemented server-side API endpoints by optimizing **Node.js** and **Express.js** to handle user/room validation