BRASEN XU

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EDUCATION

Bachelor of Computer Science (Co-op), AI Specialization, University of Waterloo — Sep 2022 - Apr 2027
3.8 GPA, 87.5 CAV

EXPERIENCE

Backend Software Engineer — May 2025 - August 2025
Splunk — *San Francisco, CA*

- Designed and integrated secure **REST APIs** and UI workflows in the Splunk Security Platform, streamlining incident investigation and operational tasks; **reduced incident resolution time by up to 30x**.
- Enhanced ML model execution service to support parameter overrides, cutting configuration deployment from **4–5 hours to minutes** and unlocking new reprocessing capabilities.
- Automated **AWS Glue** job re-runs via new API, eliminating multi-step manual processes and enabling rapid recovery during production incidents.
- Awarded **Most Impactful Intern Project** in Security Org for the term's top operational efficiency gains.

Software Engineer — September 2024 - December 2024
Onsemi — *Waterloo, ON*

- Designed and implemented new features for the user interfaces of **5+** Onsemi semiconductor chips using the **QT framework** and **C++**, significantly enhancing user experience and functionality.
- Migrated key processing core software from **Python 2 to Python 3**, ensuring compatibility with modern frameworks and libraries and improving performance by **approximately 20%**.
- Developed a language compiler using **ANTLR4**, enabling the generation of core microcode configuration files.

Software Engineer — January 2024 - April 2024
Siemens — *Concord, ON*

- Managed the development and maintenance of a **C# Windows Presentation Foundation** receiving floor display application, facilitating real-time tracking and movement of parts and enhancing operational efficiency. Integrated seamlessly with **SQL** database for data management and retrieval.
- Improved existing certification software by adding more efficient search/filter functions, allowing floor managers to search for and grant certifications for over **180 operators**.
- Built a **Windows Form application** to streamline the assembly process of PCBAs, enhancing operator efficiency and accuracy across **11 product lines**.

Technology Intern — May 2023 - August 2023
Insurance Bureau of Canada — *Toronto, ON*

- Planned and executed **software unit testing** for multiple projects, ensuring adherence to quality standards.
- Created automated test scripts for manual test cases using **Selenium** and **Katalon Studio**, successfully boosting efficiency and reducing overall testing times by **over 95% (20x faster than manual testing)**.

PROJECTS

MotiSpectra - ConUHacks Overall 2nd Place 🔗

- Built a real-time emotion and attentiveness analysis app using **Next.js**, **Python**, and custom **ML models**, integrating into Zoom/Meet/Teams and visualizing results via dynamic radar graphs.

NarratorRL - CoHere Challenge 1st Place, MetHacks Overall 2nd Place 🔗

- Created a **React Native** app for vision-impaired users that uses **Tesseract OCR**, **Django**, and **Cohere NLP** to read text aloud, summarize content, detect language, and verify legibility in real time.

SKILLS

Languages	C#, JavaScript, Python, TypeScript, Java, C/C++, SQL, HTML, CSS, Bash, Kotlin, R
Frameworks	React, React Native, Next.js, Node.js, .NET, Spring, Ruby on Rails, QT
Tools	Git, MS SQL Server, MongoDB, Microsoft Azure, Linux, AWS, Jira
Concepts	OOP, Data Structures, Algorithms, Machine Learning, Computer Vision, Object Detection