# BRUCE JIN

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## EDUCATION

**University of Waterloo**                                                      Sep 2020 – April 2025
*Bachelor of Computer Science, Artificial Intelligence Specialization*              *Waterloo, ON*

## TECHNICAL SKILLS

- **Languages:** Java, Python, Kotlin, HTML/CSS, JavaScript, C/C++, Typescript, SQL
- **Tech/Framework:** ReactJS, PostgreSQL,AWS, MySQL, Spring Boot, Git, AngularJS, Flask, NodeJS, Docker, Kubernetes, Maven, Azure, Android, Hadoop, Phidata

## WORKING EXPERIENCE

**Software Engineering Intern**                                                  Sep 2024 – Dec 2024
*Proactive AI Lab*                                                              *California, USA*

- Led the design and implementation of the admin-console, enhancing administrative capabilities and user interface by using **React**, **NextJS** , and building REST APIs by using **Python** and **FastAPI**.
- Engineered robust solutions using **Amazon Web Services** (AWS), ensuring seamless integration and operation within the ecosystem, utilizing technologies such as Amazon **ECS**, **Lambda**, and **S3**.
- Developed and maintained complex database schemas for AI platforms using **PhiData**, emphasizing **prompt engineering** to enhance AI operations and knowledge base management, integrated with PostgreSQL for efficient data retrieval and real-time performance.
- Developed modular, reusable ordering tools by defining clear responsibilities between layers (assistant, tools, adapter) to improve **AI function calling**, integrate 3rd-party APIs, and enhance performance, enabling AI agents to deliver more reliable and consistent results.

**Software Engineering Intern**                                                  May 2024 – Aug 2024
*Ultimate Kronos Group*                                                         *Toronto, ON*

- Configuring and maintaining **CI/CD** pipelines by using **Github Actions** and **Azure** Devops with **Docker** and **Kubernetes** across multiple enviorments and enabling team to safely deploy to **AKS**.
- Implemented **Service mesh**, for mobile services using Java and Typescript, deploying proxies for dynamic routing and observability, and led the integration of **mobile** services.
- Designed and created UKG Pro's In-App Review feature that is used by 5000+ people on the Google Play Store, increasing the application rating from 1.3 to over 4.1.

**Software Engineering Intern**                                                  Sep 2023 – Dec 2023
*Ford Motor Company*                                                            *Oakville, ON*

- Designed, and implemented a **Spring Boot** application of business intelligence and analytics information dashboard by using **React**, **Java** and **Kotlin**.
- Enhanced and maintained an existing **REST APIs**, integrating it with **PostgreSQL** to optimize and streamline user information management.
- Wrote comprehensive unit and integration testing strategies using **JUnit** and **Mockito** to ensure high code quality and full test coverage.

**Software Engineering Intern**                                                  Jan 2023 – Apr 2023
*Blue Streak Electronic*                                                        *Vaughan, ON*

- Designed, developed, and deployed a web application for collecting and organizing information, utilizing Java and **TypeScript** under the **Spring Boot** and **Angular** frameworks, and integrated it with **MSSQL** to manage and maintain product information.
- Implemented CRUD functionality by using **Spring Boot Controller, Service and JPA repository**.
- Developed file upload and download features independently using **SheetJS**, streamlined data operations by automating Excel file conversion, processing, and database uploads, cutting manual entry time and resulting in a **90% boost** in overall data analysis team's productivity.

## PROJECTS

**WatCarPool** ⧉ | Python, React, MySQL                                           Dec 2022

- Developed a full-stack web application in **JavaScript**, **Python** and **MySQL** for the database to provide a carpooling platform for drivers and passengers in the Ontario region.
- Created UI in **React** and implemented backend APIs in **Flask** to enable users to browse, join, and create trips.