

# Mohammad Waliduddin

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## EDUCATION

### York University

B.Eng. Software Engineering (Specialized Honors)

Toronto, ON

Sep. 2022 – Aug. 2027

## EXPERIENCE

### Software Developer Co-op

Ontario Government (MPBSD)

Sep. 2025 – Present

Toronto, ON

- Developed **Angular (TypeScript)** features and **Spring Boot** REST APIs, improving validation and error-handling to achieve a **99.5%** API success rate.
- Implemented **Oracle SQL** data-quality checks across **4–5** backend pipelines to validate correctness of system changes.
- Built and maintained **Playwright** end-to-end test suites, achieving **~90%** coverage and improving release reliability.
- Delivered reusable UI components aligned with accessibility and government design standards, accelerating feature delivery.

### Software Developer Co-op

CIBC

Sep. 2024 – Dec. 2024

Toronto, ON

- Designed and delivered automation logic for SIC/trustee code processing, reducing processing time by **70%** and improving data accuracy.
- Built features for a **React (TypeScript)** and **Azure**-based notification platform, improving reliability and internal user experience.
- Translated business requirements into technical specifications, data mappings, and implementation-ready workflows.
- Coordinated **5** major releases using **Jira** and **Confluence**, contributing to a **20%** reduction in post-release incidents.

## PROJECTS

### REAI – Real Estate Price Predictor | Python, XGBoost, sciDocker | [Live Demo](#)

- Trained an **XGBoost** regression model with Bayesian hyperparameter optimization (**Optuna**) to predict Canadian home prices.
- Built a production-grade preprocessing pipeline using **ColumnTransformer** and log-scaled targets for stable learning.
- Deployed a containerized inference API using **Docker** and **Cloud Run** with validation, monitoring, and rate limiting.
- Integrated AI-generated property visuals (**Imagen-4-ultra**) and a mortgage calculator to enhance decision support.

### CLAI – Command Line AI Team | Python, LLM Agents, Rich CLI | [Source Code](#)

- Built a multi-agent CLI where @mentions route tasks to specialized AI roles for end-to-end delivery workflows.
- Implemented an **orchestration layer** and agent-factory pattern to coordinate multi-step pipelines (feature, review, bugfix).
- Designed **shared-context** handoffs so downstream agents consume upstream outputs across workflow stages.
- Rendered outputs using **Rich** panels to improve explainability, traceability, and debugging of agent decisions.

### YorkU Parking App | Java Swing, Firebase, Cloud Run | [Source Code](#)

- Engineered a real-time management system using **Java Swing** and **Firebase**, utilizing batch writes to handle high-volume booking data.
- Developed serverless backend logic (**Cloud Run Functions**) to enable dynamic admin controls, improving system responsiveness by **45%**.

## TECHNICAL SKILLS

**Languages:** Python, Java, TypeScript, C#, SQL (Oracle), HTML5, CSS3

**ML / Data:** Pandas, PySpark, XGBoost, Optuna, PyTorch, LLM concepts (prompting, RAG)

**Frameworks:** Angular, React.js, Node.js, Express.js, Flask, FastAPI

**Cloud / DevOps:** GCP (Cloud Run, Vertex AI), Azure DevOps, AWS, Docker, Git

**Testing / CI:** Playwright, Selenium, JUnit, Randoop, CircleCI