JESSICA J. ZHANG

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RELEVANT COURSES

- •Software: Intro to Programming, Data Structures and Algorithms, Engineering Mathematics and Computation
- Hardware: Fundamentals of Electric Circuits, Digital and Computer Systems

SKILLS

Software: Java, Python, C, Object Oriented Programming (OOP), GDScript, Godot game engine, System Verilog,

Assembly (RISC-V), MATLAB, HTML, CSS, React.js, SQLite, Keras, TensorFlow, CAD OnShape

General: Fluent in French (speaking, reading, writing)

EDUCATION

University Of Toronto St. George Campus – Engineering Science (Expected graduation 2027 + 1 year CoOp) 2023–2027

Victoria Park Collegiate Institute – IB Programme

2019-2023

WORK EXPERIENCE

Innovation Developer, RBC Summer Tech Labs - RBC Internship Year 2

Summer 2023

- •Collaborated in a group of 4 to create a program for the accounts storage database using Python.
- Developed an API to allow the addition and deletion of large quantities of accounts in the company database.
- •The product tested how well the database handled large heaps of accounts and recorded execution time details.

Kumon Learning Assistant - Kumon Employee

2022

- •Assisted kids aged 5-12 with foundational math and reading skills.
- •Marked homework and provided feedback and aid as needed.

Innovation Developer, RBC Summer Tech Labs - RBC Internship Year 1

Summer 2022

- Developed a link-shortening browser extension and Slackbot for internal use.
- •Worked on both frontend and backend, resolving issues and integrating with the Slackbot API.
- Designed webpages and contributed to the overall user experience.
- •Used GitHub for code management, collaborating on multiple branches.

LEADERSHIP & PARTICIPATION

Praxis Engineering Design Team – University Design Team 2024

- •Shortlisted for the Ian and Shirley Rowe Innovation and Global Impact Award.
- •Collaborated on a team of 5 to develop a design solution for worm composting systems at Allen Gardens.
- •Created CAD models using OnShape and prepared an RFP document shortlisted by other teams.
- Presented design and engineering solutions at the final Showcase.

PERSONAL PROJECTS

Godot 2D Game - January 2025

- Designed and developed a 2D Radiation themed video game using the Godot Game engine. I applied shaders, animations, basic game physics, and Godot node system.
- •Game available for download on itch.io (see website/projects)

Java GUI Recipe Manager - 2023

• Developed a recipe management app with Java OOP and GUI. Integrated sqlite to store accounts and recipes.

Machine Learning Project (Keras, TensorFlow) - Summer 2022

- Used Keras and TensorFlow to compare neural networks with the KNN model using the Pima Indian diabetes dataset.
- •Wrote a formal report on findings and algorithmic approaches.