

# Zuhair Khan

[zuhairhk.ca](http://zuhairhk.ca) | [zuhairhk@gmail.com](mailto:zuhairhk@gmail.com) | [linkedin.com/in/zuhairhkhan](https://linkedin.com/in/zuhairhkhan) | [github.com/zuhairhk](https://github.com/zuhairhk)

## EDUCATION

---

### Toronto Metropolitan University (Formerly Ryerson University)

Toronto, ON

*B.Eng, Computer Engineering*

*Expected graduation, May 2026*

- Electrical & Computer Engineering Student Society VP Operations
- RUHacks 1st Place, REC 1st Place, MET Eng Comp 3rd Place
- Related Coursework: Data Structures & Algorithms, Advanced Algorithms, Software Design & Architecture, Computer Organization & Architecture, Operating Systems, Database Systems

## EXPERIENCE

---

### Software Development Engineering Intern

May 2024 – April 2025

*Ontario Power Generation (OPG)*

*Bowmanville, ON*

*System C & OHD Application*

- Developed **RESTful APIs** using **Python Flask** and **pymssql** to enable communication between the application and database.
- Implemented a three-tier architecture and MVC software design pattern to streamline application structure and maintainability.
- Automated resource-intensive workflows, optimizing individual request efficiency by **93.33%**.
- Led the design and development phase of the project, coordinating with cross-functional teams and stakeholders.
- Managed source control and versioning through **Azure DevOps**.

*Matrix Application*

- Modernized a critical work plan matrix program using **Python Flask**, **VBA**, and **pyodbc** to support operations at Darlington Nuclear.
- Developed an algorithm to generate logical maps for custom NG\_M data types at runtime, significantly improving runtime efficiency.
- Streamlined weekly resource scheduling tasks for crews, reducing the time required from 16 hours to an instantaneous process.

*RDBMS Oversight*

- Performed SQL queries using **Microsoft SQL Server Management Studio** to fulfill ad hoc data requests.
- Automated routine data pulls to enhance efficiency and accuracy across various departments.

### Project Manager (CEN 100)

Sep. 2023 – Dec. 2023

*Toronto Metropolitan University*

*Toronto, ON*

- Guided and mentored 35 first-year engineering students to ensure a smooth transition into the program.
- Facilitated weekly tutorials introducing the concepts of collaborative research and project execution to students.

## PROJECTS (FOR ADDITIONAL PROJECTS AND LOGS, VISIT -> [PROJECTS](#))

---

### AI Enhanced Caption Generator | *OpenAI API, Python, Front-End Development*

Aug. 2023

- Developed an AI-powered video caption generator using the **OpenAI API**.
- Implemented a multi-step process to decode video, transcribe audio, and parse text utilizing prompt-engineering to generate relevant video captions.
- Built front-end user interaction features to improve accessibility and ease of use.

### Digitized Daniel – 1st Place at RUHacks 2022 ([Demo](#))

May 2022

- Developed an award-winning Discord bot using **Python**, **Nextcord API**, **OpenCV**, and **PIL**.
- Implemented **IoT** features for controlling room lighting via user slash commands.
- Used facial/eye tracking with OpenCV to monitor users' awake status.
- Built a Pomodoro feature with **asyncio** to aide in studying.
- Created a web scraper to fetch relevant search results based on user commands.

## TECHNICAL SKILLS

---

**Languages:** Python, C/C++, Java, Dart, C#, SQL, JavaScript, HTML/CSS

**Frameworks:** Flask, Flutter, React, Django, Node.js, JUnit

**Technologies:** Git, Docker, Azure DevOps, Google Cloud Platform, Cloudflare, Agile (Kanban), SSMS

**Certificates:** Python AI Development: Intermediate ([Skillsoft Percipio](#))