

PUSHPINDER SEKHON

 <https://pushpindersekhon10.github.io/portfolio-website/>

Education

University of Western Ontario

2022 – 2026

Bachelor of Engineering Science in Software Engineering - Deans Honor List 2022-2024 - 85% CA

London, Ontario

Experience

Royal Bank of Canada

September 2024 - December 2024

Design Thinking Program

London, Ontario

- Selected to complete program, designed by RBC professionals to develop critical thinking and problem solving skills.
- Highly competitive program with only 1 in 30 applicants being selected, and receiving \$ 3500 stipend.

OptiSeis Solutions

Summer 2024

Intern

Calgary, Alberta

- Filled business need by developing vacation tracking application, replacing a previous honour based system.
- Using geolocation software to accurately map landmarks in order to correctly identify blasting positions.

Western Engineering Concrete Canoe Association

Aug 2024 - Present

Developer

London, Ontario

- Developing application which aids engineering students efficiently make calculations when building concrete canoes.
- Learned Material Design, ImageJ and JavaFX to create a robust application to aid our team to win the competition.

Quantum Computing Club

September 2023 - Present

Director of Research

London, Ontario

- Produced four documentary style videos on topics including qubits, the types of these computers, modern innovations.
- Researched and produced two separate reports on quantum cryptography and picking call options using quantum tech.

Western Algorithmic Trading Club

September 2023 – Present

Alternative Data Team - Software Developer

London, Ontario

- Extracted 96,000 data files using IMF api, and used pandas to derive insights related to sovereign debt defaults.
- Presented findings in live presentation to over fifty club members, and answered questions in following question period.

Projects

Adventure Video game | Unity, C#

January 2024

- Produced full fledged adventure video game, set in a medieval setting, including 12 distinct enemies, with various weapons and armour, while allowing players full freedom to explore the hand crafted levels.
- Developed 24 C# scripts for the functionality of the game, including a damage system, raycast detection, custom cameras movement system, virtual marketplace, music system, and enemy artificial intelligence.
- <https://github.com/pushpinderSekhon10/2Serious.git>

PDF Application | Python, PyPDF

May 2024

- Features include displaying/searching text, merging/splitting pdfs, adding images, encryption/decryption, bookmarks, and annotations. Many of these features are unique to this application or normally only available through paid services.
- Made it so the software is accessible to all and is an alternative to tech giants like Adobe.
- <https://github.com/pushpinderSekhon10/pdfViewer.git>

Quantum Gate and Semiconductor property Calculator | Java, JavaFx

May 2024

- Developed Gui based application using JavaFX to determine the probabilities of quantum circuits, and calculate the properties of different semiconductors, allowing engineers to more quickly determine them.
- The application can calculate the probability of the outputs of a 3x2 quantum circuit, with 7 different quantum gates and 12 different properties of a semiconductor, making it highly robust and versatile.
- <https://github.com/pushpinderSekhon10/ElectricalEngineeringCalculator.git>

Technical Skills

Languages : Java, Python, JavaScript, C#, MATLAB, Visual Basic, HTML, CSS,

Developer Tools: VS Code, AWS, IntelliJ, PyCharm, Anaconda, Unity, Jupyter Notebooks, Vercel, Render

Technologies/Frameworks: Jenkins, GitHub, numpy, Matplotlib, Keras, PyPdf, JavaFx, ImageJ, React, Node, Express

Extracurricular

Intramural Hockey

September 2022 – Present