arshan Kasundra

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# Education

# **University Of Toronto**

Sept. 2023 - Present Toronto, ON

- Bachelor of Applied Science (B.A.Sc.) in Computer Engineering + PEY Co-op • Relevant Coursework: Programming Fundamentals (C++), Computer Fundamentals (C), Software Design and Communication (C++, Git), Computer Organization (Assembly).
  - Dean's List: Fall 2024 (GPA: 3.52/4.0)

# **Technical Skills**

Languages: Python, C/C++, C#, SQL, JavaScript, TypeScript, React, Three.js, HTML/CSS, MATLAB Developer Tools: Microsoft Power Apps & Power Automate, PowerBI, Office 365 Applications, PyTorch, Socket.IO, REST APIs, WebXR, DevOps, Git, GitHub, Valgrind, Bash, VS Code, Quartus, ModelSim Skills: Problem-Solving, Communication, Collaboration, Adaptability, Technical Documentation, Critical Thinking

### Projects

### **Phish Email Detector (GitHub)** | Python, PyTorch, Google Colab, Kaggle, React.js, Flask

- Developed AI-powered email security solutions utilizing transformer **neural networks** for advanced phishing detection.
- Engineered data pipeline for 18k+ emails with 80% efficiency and tokenization for enhanced model feature recognition.
- Achieved 95% detection accuracy in 10 epochs with GDPR-compliant zero-storage architecture.

### Public Speaking VR Simulator (GitHub) | Python, Three.js, Google Gemini API, WebXR, Socket.IO

- Engineered a real-time VR public speaking environment by integrating Three.js with WebXR API featuring 6 interactive audience avatars for realistic speech simulation.
- Implemented bi-directional communication using Socket.IO and Flask backend, creating a speech processing pipeline that combines **real-time audio transcription** with **Google Gemini API** for dynamic Q&A generation.
- Developed an immersive **UI system** featuring a floating question display, interactive timer, and VR-optimized button controls.

### Movie Browser (GitHub) | JavaScript, React, HTML, CSS

- Created a dynamic movie browser using React, integrating the **TMDB API** to fetch and display latest movie data.
- Designed responsive UI/UX with HTML, CSS, and Bootstrap 5 allowing users for smoother navigation across multiple devices.
- Implemented real-time movie filtering with **JavaScript** to enhance search functionality.

### **Pong Game** | C++, OOP Principles

- Engineered a single-player Pong game using C++ and OOP that contained 3 classes (Ball, Player, Screen).
- Designed adaptive difficulty: decreased paddle size (1 unit/2 hits), introduced up to 5 balls/5 hits.
- Developed real-time physics (gravity, collision detection) with **60 FPS** performance via efficient frame updates.

### Reversi/Othello Game | C

- Designed command-line Reversi AI solver using **Greedy algorithm** for immediate condition optimization.
- Developed interactive command-line UI & Bash testing framework for efficient testing/debugging.

### Experience

### Soccer Coach

Summer FC

- Led a team of **50+ players** in developing their fundamental soccer abilities.
- Organized and directed practice sessions for **20** athletes per session.
- Improved overall team and individual skill performance.

### Produce Clerk

Food Basics

- Organized produce shipments averaging 800 pieces, maintaining inventory in both retail displays and storage areas.
- Upheld rigorous quality control standards and **achieved 100% compliance** with health regulations.
- Delivered **excellent customer service** while handling 15+ daily product inquiries.

### Tutor

Kumon Math & Reading Center

- Tutored **100+ students** over 3 years to develop their math and/or reading skills.
- Provided personalized feedback and evaluation on worksheets using effective **communication skills**.
- Achieved measurable results, enhancing their reading and math levels by an average of **2 levels per year**.

Sault Ste. Marie, ON

- Jun. 2023 to Aug. 2024 Sault Ste. Marie, ON
- Mar. 2020 to Aug. 2023 Sault Ste. Marie, ON

Jul. 2024 to Aug. 2024