# Suyeon Park

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# **EDUCATION**

## University of Toronto

Toronto, ON

Bachelor of Applied Science in Computer Engineering

Sept 2022 - May 2026

Coursework: Algorithms and Data Structures, Operating Systems, Deep Learning, Embedded Systems, Computer Network, Introduction to Databases, Programming Fundamentals (OOP), Calculus, Linear Algebra, Probability

# TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, TypeScript, Java, SQL, PHP, HTML/CSS, MATLAB, Assembly, Verilog

Technologies: React, Node.js, Flask, PostgreSQL, DynamoDB, PyTorch, Pandas, NumPy, Scikit-learn Tools: Docker, Linux/Unix, Git, VS Code, Azure, AWS, RESTful APIs, Figma, Power BI, Microsoft Office

## EXPERIENCE

# IT Project Assistant

May 2023 - Aug 2023

Government of Ontario, Ministry of Transportation

Toronto, ON

- Led a 5-person frontend team to develop a  $\overline{\text{CNN}}$ -based resume screening platform using  $\overline{\text{React}} + \overline{\text{Vite}}$ , streamlining recruitment with a user-friendly interface and  $\overline{\text{MongoDB}}$  integration for data management
- Resolved and deployed updates for the PHP-based myEOIS website using Microsoft Azure

# Vice-President Finance Secretary

May 2023 – Present

University of Toronto Engineering Society Finance Committee

Toronto, ON

• Developed a <u>JavaScript program</u> that streamlines application processes, <u>automating documentation tasks</u> and reducing <u>manual screening time</u> from 5 hours to 30 minutes using Robotic Process Automation (RPA)

#### AWARDS

#### [LIVE AI Ivy Plus] Havard & Duke Hackathon

Feb 2025

Developed Ticketchain, a **blockchain-based NFT ticketing platform** using Solidity, Hardhat, Ethers.js, Next.js, Node.js, and MongoDB, ensuring secure, transparent, and fair event ticketing while preventing fraud and scalping

## AWS Game Builder Challenge

Jan 2025

Developed a 1v1 multiplayer web-based debate duel game, leveraging AWS services (AWS Amplify, AppSync, DynamoDB, Amazon Bedrock) for ML-driven debate topic generation and grading mechanism

# AWS & IEEE Hack The Student Life - Best Project

Nov 2024

Recognized for developing SemTrack, a mobile app using React Native and Node.js, integrating GPS verification and AWS services (DynamoDB, Lambda) to optimize seminar attendance tracking while addressing privacy concerns

## Toronto Health Datathon - 2nd Place

Feb 2022

Trained a linear regression model to predict patient's race based on SaO2 and SpO2 oxygen saturation levels

## Projects

## FaceChat: Real-Time Emotion-Driven Text-to-Face Animation

July 2024 – Aug 2024

• Developed an interactive chat interface with emotion-driven TTS and real-time 3D facial animation by integrating APIs such as a sentiment analysis ML model, OpenAI, ElevenLabs, and NVIDIA Audio2Face

## GIS Safety Map: SafeCity

Jan 2023 – Apr 2023

- Developed a **GIS-based map in C++ with ezgl**, integrating past crime data and real-time traffic API to highlight high-risk areas, improving safety awareness and navigation efficiency
- Optimized the A\* algorithm to achieve 93% of pathfinding searches under 100ms and enhanced multi-route planning efficiency by 23%, with 60% of test cases yielding a Quality of Result (QoR) score below 110,000

# FPGA Karaoke Program: My Heart Will Go On

Mar 2023 – Apr 2023

- Developed a karaoke program in C on FPGA with VGA display, achieving the highest score in the class
- Integrated the YIN algorithm for pitch detection of an original song and utilized a faster zero-crossing rate method for user input, focusing on optimization for real-time computational efficiency