

Akash Kanagarajah

+1 (289)-544-5279 | akashkanagarajah@gmail.com | [Linkedin](#)

Skills

Technical: C, C++ (Modern C++), Python, Java, SystemC TLM, Embedded Linux, Android (adb/logcat), Yocto, Git, Shell Scripting, ARM Architecture (GIC, CoreSight), Firmware Development, Functional Safety (ISO26262), Verilog/VHDL, Assembly (ARM), MATLAB, LaTeX, React, TailwindCSS, AutoCAD (Basic), OpenAI API

Platforms: Excel, Git, JIRA, Visual Studio, Eclipse, Quartus, Multisim

Soft: Problem Solving, Collaboration, Communication, Critical Thinking, Adaptability, Presenting

Experience

Control Systems Engineer, Ontario Power Generation – Pickering, ON May 2022 – April 2023

- Conducted regression testing and validation for embedded software used in nuclear infrastructure.
- Diagnosed real-time Linux issues using adb/logs, improving resolution time by 30%.
- Collaborated cross-functionally to communicate system issues and recommend fixes.

Electrical Assembly Technician, ABB Ltd. – Brampton, ON June 2019 – Aug 2019

- Interpreted electrical schematics via AutoCAD to support retrofitting of circuit breakers.
- Supported embedded hardware upgrades for real-time control systems.

Projects

FPGA Game Design

Skills: VHDL, Spartan-3E FPGA, Quartus, VGA, Git

- Designed and implemented a Ping Pong game on a Spartan-3E FPGA using VHDL, handling real-time game logic and score tracking.
- Reduced game processing delays by 15% with optimized VGA display and control synchronization.
- Demonstrated SoC-level modularity by integrating timing logic and VGA control systems.

Smart Resume Analyzer

Skills: React, Tailwind, Netlify, GitHub Actions, pdfjs-dist

- Built and deployed a web app that analyzes uploaded resumes for job-relevant skills using keyword extraction.
- Designed frontend and backend logic to compare resume content with selected job roles, visually highlighting missing keywords.

Blockchain-Based Energy Trading Platform (Capstone)

Skills: Solidity, Ethereum, Chainlink Oracles, Git, Ganache

- Built a decentralized energy trading platform on Ethereum with Chainlink Oracles for real-time energy pricing.
- Led smart contract development and simulation, boosting trade volume by 25% and reducing transaction time by 40%.

AI Fitness Plan Generator

Skills: OpenAI API, Make.com, Google Forms, Automation

- Engineered an AI-powered automation tool that generates personalized fitness and meal plans from intake form data.
- Integrated OpenAI with Make.com to create a fully automated workflow from input collection to output delivery.
- Designed as a white-label SaaS product for coaches and small fitness studios.

Education

Bachelor of Engineering (B.Eng.) in Computer Engineering, Toronto Metropolitan University

Class of 2024