Theeshiikan A Shanmuganathan

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Highlights of Qualifications

- Third-year Computer Engineering student with a strong foundation in hardware and software principles.
- Solid foundation in programming basics proven through relevant coursework and projects.
- Consistently high academic performance, maintaining a GPA of 3.42.
- Strong communication skills and a team player, demonstrated through teaching and mentoring at Code Ninjas.

Skills

- **Programming Languages:** VHDL, Python, C/C++, HTML, Java, JavaScript, Assembly
- **Soft Skills:** Problem-solving, team collaboration, strong communication
- **Tools & Technologies:** Quartus, MATLAB, Git, Oscilloscopes, Logic Analyzers, and MOSFETs
- **Concepts:** Digital Logic Design, Circuit Design/Analysis, Verification Methodologies, FPGA Design

Education

B.Eng. in Computer Engineering *2022 – Present*
Toronto Metropolitan University, Toronto, ON

- **Dean's List** — *2022/2023*
- **Relevant Coursework:** Algorithms and Data Structures (C), Digital Systems (FPGA/VHDL), Object-Oriented Engineering Analysis and Design (Java), Electronic Circuits (Analog Design), Microprocessors (Assembly)

Professional Experience

Lead Code Instructor, Code Ninjas
04/2023 – Present, Aurora, Canada

- Completed training in JavaScript to teach children aged 8-14 coding principles.
- Planned and hosted hackathons, open houses, and events to engage the community.
- Led a LEGO robotics camp, teaching engineering concepts and coding robots in JavaScript.
- Demonstrated strong communication skills by engaging with students and parents.
- Collaborated with large teams, ensuring effective communication.

Projects

MoneyFlow Tracker — JavaFX, Java

- Developed an interactive GUI for a banking system with multiple screens and logins.
- Implemented admin functionality for adding/removing customers.
- Enabled customer login, transaction history viewing, and account management.
- Used UML diagrams for planning and organization.
- **Personal Takeaway:** Improved problem-solving skills and adaptability by learning JavaFX.

Projects Continued

2-Stage Amplifier Design — Multisim

- Designed a 2-stage amplifier using BJTs for specific gain requirements.
- Simulated the amplifier in Multisim to verify performance and efficiency.
- **Personal Takeaway:** Developed focus on precision and optimization through multiple testing stages.

General-Purpose Processor Design — Quartus, FPGA, VHDL

- Created a processor using latches, decoders, FSMs, and an ALU for simple tasks.
- Coded in VHDL and tested in Quartus, implementing on FPGA.
- **Personal Takeaway:** Gained technical growth and collaboration skills.

Personal Website — theeshiikan.com and kassghayouri.com

- Developed and organized a website with subcategories for content organization.
- Used HTML and CSS.
- **Personal Takeaway:** Sparked an interest in web development.

TMU Programming Competition 2024 — Python

- Built a Python job-matching platform using data analytics for disadvantaged job-seekers.
- Analyzed job attributes to recommend job opportunities for applicants.
- **Personal Takeaway:** Strengthened teamwork and collaboration skills.

StatsCan Diabetes Analyzer — C

- Built a software that fully analyzes a large dataset (census) about Diabetes in Canada.
- Created functions with nested loops to print out calculated statistics.
- **Personal Takeaway:** Strengthened my understanding of fundamental coding practices that can be implemented in any programming language.