Sean Pourgoutzidis

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Summary

Computer Engineering student at the University of Toronto student eager to gain experience and pursue my passion for developing meaningful software. Experienced in team-based engineering design projects as well as software development in a multitude of contexts.

Education

Bachelor of Applied Science and Engineering (B.A.Sc.) in Computer Engineering + PEY Co-op
University of Toronto
SEP. 2021 -APR. 2026 (expected)

- Intended minor in Artificial Intelligence
- Relevant Courses: Software Communication & Design (C++), Computer Programming (C++), Computer Organization (ARM/Verilog), Digital Logic (Verilog), Engineering Strategies and Practice, Linear Algebra

Skills & Abilities

- Programming: C++, C, Python, Java, React, SQL, Verilog, ARM Assembly, ROS.
- Software Development: GIT, Terminal, Quartus, Microsoft Office, Google Cloud Platform
- Professional Team-based Communication, Organization and Accountability.
- Applied problem-solving within engineering contexts

Professional Experience

GIS Software Developer (C++) | Software Communication & Design, University of Toronto, Toronto, ON
JAN. 2023 - APR. 2023

- Designed a fully functional GIS system (analogous to Google Maps) in a team of 3 for the ECE297 Software Development course, resulting in a final grade (A) much greater than average (B+).
- Employed modern programming practices including: C++ STL data structures, multi-threading, and pathfinding through Dijkstra/A* algorithms resulting in our software meeting industry standard performance metrics.
- Developed software collaboratively using Git, group debugging, milestone presentations and a team wiki allowing us to meet our goals with minimal conflict.

Communications Coordinator | Engineering Strategies and Practice II, University of Toronto, Toronto, ON
JAN. 2022 - APR. 2022

- Developed a functional prototype to assess campus rooftop's suitability for use as rooftop gardens, satisfying the client's needs.
- Communicated with the client to coordinate meetings, ensuring their input informed design decisions.
- Programmed a software prototype using C programming concepts, prepared reports on the design process and presented the final design to the client for approval while meeting all deadlines.

Personal Projects

Mati Software Developer (Python) | Personal Project, Toronto, ON
AUG. 2023

- Created a Python application that acts as a "robotic seeing-eye animal" as a proof of concept for the purpose of providing a more convenient alternative to those in need of assistance.
- Applied usage of computer vision (Yolov5), LLMs (HuggingFace) and text-to-speech (gTTS) leading to a fully-functional prototype.
- Gathered greater insight into working with computer vision libraries and LLM APIs, expanding my development potential in the modern industry.

ApplicationAssistant App Developer (Python) | Personal Project, Toronto, ON
JULY 2023

- Generated a Python application that automatically checks the user's inbox for job updates before updating their tracking spreadsheet and sending them an SMS notification, resulting in a convenient application management system.
- Leveraged Google Cloud Console, SMS messaging, and a multitude of libraries/APIs to help automate job application process which resulted in an easy to use, scalable application.
- Articulated step-by-step instructions for personal set-up on GitHub, allowing my peers to download and use the program themselves.

Website Designer for Portfolio Website (React) | Personal Project, Toronto, ON
JUN. 2022 - SEP. 2022

- Fully designed, programmed and deployed a portfolio website used to highlight personal programming projects.
- Applied concepts of React JavaScript, CSS and website design resulting in a fully-functional, user-friendly design.
- Managed a schedule for the project, applying concepts of the engineering design process and ensuring an effective design was generated within the allotted time frame.

Extracurriculars

Volunteer at CivicTech Toronto | CivicTech, Toronto, ON
JUL. 2023 - CURRENT

- Engaged with ~30 technical professionals of various backgrounds on weekly "hack nights" aiming to ameliorate public life in Toronto.
- Learned how to better employ technical skills to solve real world problems through discussion with fellow volunteers.
- Garnered insight into modern software concepts such as LLMs and Open Data, resulting in a better-informed view of current industry perspectives.

Software Sub-Team Member at Robotics for Space Exploration (RSX) | University of Toronto, Toronto, ON
SEP. 2022 - CURRENT

- Collaborated with fellow students to help develop a model rover for space exploration to participate in inter-university competitions.
- Applying concepts of C++, Python and Robot Operating System (ROS) to develop software that enables robot function.
- Asked team members for help in navigating new technical material, building my confidence and prompting me to take a course to become certified in ROS.

Certifications

ROS | Udemy - August 2023

- An online, experience-based course explaining the essentials of ROS and working with robotics detailing concepts including: topics, services, custom messages, launch files and parameters.

SQL | Udemy - July 2023

- An online course that taught the essentials of creating and querying an SQL database using concepts such as SQL commands, as well as join and group-by statements.

Python | Udemy - July 2023

- An online, project-based course teaching the fundamentals of Python including basic syntax, data structures, error handling, webscraping, sending emails and working with CSV files.

React | Udemy - July 2022

- An online, self-regulated course teaching the fundamentals of React JavaScript including core concepts such as properties, state, the hooks system and redux.