

Leonardo Nigro

Computer Engineering

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EDUCATION

The University of Guelph | Guelph, ON

April 2027

Bachelor of Engineering in Computer Engineering Co-op

Relevant Courses Software: Data Structures, Object Oriented Programming, Discrete Structures in Computing

Relevant Courses Hardware: Computer Architecture, Digital Design, Computer Organization, Electric Circuits

Minor in Project Management

TECHNICAL SKILLS

Programming Languages: JavaScript, Python, C, Rust, MySQL, Kotlin, Swift

Frameworks and Services: React, React Native, AWS S3, RDS, EC2, Vercel, Next.js, Django

Operating Systems: Windows XP/Vista/10/11, Linux Mint/Ubuntu/Red Hat, MacOS

PROJECTS

React Native Mobile App | Personal Project

April 2023 – Feb 2024

- A cross-platform application, optimizing performance and user experience with native development options.
- Utilized AWS for cloud computing, maintaining a **Django** API and MySQL RDS for backend web services.
- Maintained a robust GIT CI pipeline, streamlining the integration of updates into a parallel production instance.
- Proficiently used **Tailwind** CSS and **Typescript** in **React** to ensure scalable and industry-standard code.
- Documented progress, logs, issues, and branching through GitHub projects.

PYTHON WEATHER DATA ANALYSIS | Personal Project

January 2024

- Developed a Python Web scraping script to pull live data from weather.gc.ca and store it in a JSON document style database, asynchronously collecting data from 100+ Ontario cities.
- Utilized GitHub Actions to automate scripting calls to every hour allowing for a constant stream of data.
- Plotted best fits, percentile error, standard deviation, and regression through Matplotlib.

POWERPOINT GPT | Personal Project

February 2023

- Developed a fully functional **Python** wrapper to interact with **GPT-4.0 API** access keys, seamlessly incorporating python's capabilities into PowerPoint generation.
- Integrated python-pptx, to develop automated presentation generation. Facilitated dynamic slide creation using content generated by GPT-4.0, enabling rapid production of professional-quality presentations.

AstroBrick | Personal Project

May 2021

- Created a retro style mini game in **JavaScript** for web with player lives, a pause menu, and immersive controls.
- Breakable brick objects will procedurally spawn closing onto a player, the player can shoot a projectile object to break these enclosing bricks but if the projectile, or bricks collide with the ship the player loses a life.
- Due to a lack of game engine, mouse tracking, player movement and collisions were all hard coded in JS.

PROFESSIONAL EXPERIENCE

Secondary School Tutor | Tutorax

Jan - April 2022

- Individually mentor students in Computer Science, Physics and Math explaining challenging concepts and reinforcing learning from in-class with exercises and practice problem sets.
- Saw an overall 15% grade point average boost from years without tutor support.
- Coordinated billing, time slots and student progress with parents.