

Joshua Gonzales

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SKILLS

- C++
- Java
- C#
- MATLAB
- Solidworks
- Python

EDUCATION

Queen's University, Kingston, ON

Bachelor of Applied Science Candidate (B.Sc.), Class of 2024

- Coursework included topics on computer science, effective planning, communication skills, data analysis and design in engineering.
- Relevant Courses: Engineering Practice 101, Design Project 103, Linear Algebra, Introduction to Computer Programming
- Prospective student in the Computer Engineering field

PROJECTS

Hyperloop Hall Sensor (Magnetic-based) Tachometer – January 2021

- Led a small team to carefully develop a magnetic-based tachometer for the Queen's Hyperloop Design Team as a capstone project for first year engineering.
- Specialized in Arduino/C++ debugging and reiterative prototyping.
- Coordinated essential team tasks such as Solidworks simulations, mounting bracket design, and data documentation for reports.
- Organized meetings with team members and clients for feedback

Canadian Stratospheric Balloon Experiment Design Proposal –November 2020

- Junior Member of the Queen's Engineering Space Team and assisted in writing the design proposal for a balloon satellite selected to be launched by the Canadian Space Agency
- Balloon satellite carries a lightweight attitude determination system and aims to capture images of Earth's horizon using off-the-shelf cameras

Square Slayer (Personal Project) – January 2020

- Developed a 2D arena shooter programmed using C# and Unity Game Engine
- Scripting included creation of prefabs for enemies, 2D player movement, inventory system, particle effects and sound management.

REACH Trivia Training Program (Personal Project) – February 2020

- As a request for Monsignor Paul Dwyer's Trivia Team. I helped develop a Java based quiz program with a small team.
- Designed and built GUI, user prompt, and algorithm that scans a prewritten pdf file that includes quiz questions and answers.

OTHER ACTIVITIES

Participant of the University of Toronto's Da Vinci Engineering Enrichment Program (2019) where I learned developments of biomechatronic body parts and learned engineering skills.

Currently working on an RPG Souls-like game using Unity Engine.

INTERESTS

- Guitar
- Game Design
- Piano
- Robotics
- Cross-Country
- YouTube Content Creation