Orest Cobani

Electrical Engineering

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EDUCATION

Electrical Engineering

University Of Toronto - Bachelor Of Applied Sciences

09/2018 – Present

CGPA 3.46

SKILLS

Technical:

MS Office, C, C++, Verilog, Assembly, Quartus, ModelSim, MultiSim, Matlab, Octave, GDB(gnu debugger), Valgrind, Netbeans, Machine Learning, Neural Nets, Linux, GTK, OpenMP, Git.

Interpersonal:

Leadership, Public Speaking, Presentation Skills, Good Communication, Lateral Thinking.

EXPERIENCE

CHIEF ENGINEER OF BRAKING SYSTEMS

UNIVERSITY OF TORONTO HYPERLOOP TEAM

06/2019 – 01/2020

Toronto,Ontario

- Led a team of more than 6 people to design a complete braking system.
- Run feasibility analysis on more than 4 alternative designs.
- Delivered weekly Progress Reports.
- Persuaded more than 5 companies to sponsor our team, which led to raising more than $10k, for my team alone.
- Conducted and directed weekly meetings with my team and the leading board.

COMMUNICATIONS ENGINEER

UNIVERSITY OF TORONTO HYPERLOOP TEAM

01/2019 – Present

Toronto,Ontario

- Conducted research, which helped to decide on the best product to be used and how to use it.
- Designed a preliminary system of communication, which will serve as a stepping stone for the later iterations.
- Established relations with the company that will provide us with the products.

PROJECTS

GIS (Geographic Information System) *01/2020 - 04/2020*

I was a project manager for a project where me and my colleagues created a Map and Navigation service similar to “Google Maps”. I used C++ and STL templates to create high performance algorithms that retrieved data from a low-level API and returned structured information in the form of different data structures that were later used to draw the features of the map using GTK.

Asteroids Game *03/2020 - 04/2020*

Using assembly and C for ARM 32-bit architecture on a DE1-Soc computer, I was able to create an arcade game (similar to the classic Asteroids) which involved a spaceship moving on a screen trying to destroy incoming asteroids from different directions. The game contains a score count as well as levels.

INSIGHT *11/2019 – 12/2019*

Plot fitting tool running on an Intel FPGA. Implemented a simple machine learning algorithm to perform polynomial regression, and created a VGA grapher module to plot the result. Written in Verilog.

Number Recognition via Neural Networks *06/2019 – 08/2019*

Using MATLAB and publicly available training data, I designed and trained a neural network using forward and back propagation to recognize numbers in images.

Measuring the Split Times of Curling Stones *01/2019 – 04/2019*

Led a team of 6 engineers to design and build a device which measures the split times of curling stones. Design was delivered to the client, and received a very positive response.

Designing user interfaces with textured haptic feedback *09/2018 – 12/2019*

I acted as the project manager on a team of five engineers. We designed a user interface for use on a touchscreen device which provides textures for feedback. Intended for use by visually impaired people.

INTERESTS

Physics, Mathematics, Artificial Intelligence, Technology, Data Science, Electric Vehicles, Renewable Energy.