

DANIEL RAYMOND

EXPERIENCE

SpaceX

Starship Avionics Intern

2021 May-Aug

- Working on the team responsible for sensors on the rocket going to Mars
- Utilizing digital signal processing (DSP) techniques to gather data
- Using FPGAs in conjunction with processors to optimize data collection

AMD

Firmware + Full Stack Developer

2020 Sept-Dec

- Designed and implemented website to cultivate team workflow
- Made website to improve info visualization and team analytics
- Implemented on-chip communication system for the new AMD chips

SKILLS

High Level

Python, TensorFlow, NumPy, Pandas, Jupyter Notebooks, SQL, Bash, Git

Low Level

C, C++, Assembly, Verilog, CAD

Web/App Development

Vue.js, React, JS, Flask, Flutter, HTML, CSS

PROJECTS

Word2Vec Passion Finder App

2020 Sept-Feb

- Built a flutter app to help people find passions using Wikipedia dataset
- Used unconventional technique with word2vec to map topics
- Suggests topics based off user position in topic map

LinkedIn Career Mapping

2020 Aug-Sept

- Utilized LinkedIn data to embedded 600 careers into a 50-D space
- Created career trees to highlight various routes to obtaining a job
- Categorized career types by using agglomerative clustering

Vibeify: Artificially Intelligent DJ

2020 February

- Designed website to track 'vibe' of the room & play corresponding music
- Tracked the motion of bodies using TensorFlow JS & PoseNet
- Implemented sorting algorithm to run & play songs using Spotify API

Custom Four-Bit Computer

2019 Jan-Aug

- Designed a breadboard prototype from a basic block diagram
- Hand-routed a PCB with 200+ connections & 40+ chips
- Polished final product with a 3D printed case & an acrylic cover
- Devised custom machine code language with a unique programmer

EDUCATION

University of Waterloo

BASc Candidate | Class of 2024

Systems Design Engineering (SYDE)

ACHIEVEMENTS

CUTC Tech Lead

Present

Selected to help lead the Canadian Undergraduate Technology Conference taking place in June 2021.

SHAD Valedictorian

2019 Jul

Voted by 64 other University of Calgary SHAD program members to represent the group.

Community Engagement

2019 Jun

Awarded for exemplary community involvement & participation in a wide range of extra-curricular activities.

[🌐 danielraymond.me](https://danielraymond.me)

[📺 /in/draymond63](https://in/draymond63)

[🎮 /draymond63](https://twitch.tv/draymond63)

[✉ daniel.raymond@uwaterloo.ca](mailto:daniel.raymond@uwaterloo.ca)

[📄 danielraymond.me/DER.pdf](https://danielraymond.me/DER.pdf)