

# DANIEL RAYMOND

## EXPERIENCE

### SpaceX

#### Starship Sensor Development Intern

2021 May-Aug

- Creating the world's best navigations solution for Starship
- Developing FPGA DSP logic and firmware to efficiently control the device
- Devising real time system architecture to integrate a custom PCB

### AMD

#### Firmware + Full Stack Intern

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/dr63](https://github.com/dr63)

[🐦 /dr63](https://twitter.com/dr63)

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

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