## **Dragon Prevost**

 $\label{eq:www.dkp.io} www.dkp.io\\ github.com/dragonprevost$ 

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## Languages and Skills

 $\bullet$  Python  $\bullet$  Go  $\bullet$  Machine Learning  $\bullet$  Remote Sensing  $\bullet$  OOP  $\bullet$  Functional  $\bullet$  Version Control  $\bullet$  DBMS  $\bullet$  Data Structures EDUCATION

University of Victoria

Victoria, BC

Bachelor of Science in Computer Science

Expected Graduation: April 2021

University of Victoria

Victoria, BC

Diploma in Business Administration

Aug 2014 - April 2015

EXPERIENCE AND PROFICIENCIES

MazumaGo Vancouver, BC

Software Engineer September 2022 - Current

User Authentication: Made us of tools and patterns such as OpenID, Json Web Tokens, multi-factor authentication, and permission levels to build authentication system.

Project Management: Oversaw the completion of multiple projects such debit card

Djano Rest framework: Description

**Typescript**: Trained, tuned and evaluated a Feature Pyramid Segmentation Network to classify active wildfires via Earth observation data sets.

Bank Processing: Built out backend for neo bank.

User Authentication: Made us of tools and patterns such as OpenID, Json Web Tokens, multi-factor authentication, and permission levels to build authentication system.

Urthecast Vancouver, BC

Machine Learning Engineer

April 2020 - December 2020

**Remote Sensing**: Gained knowledge and experience of remote sensing through processing a variety of Earth observation products for machine learning applications.

**Regression Models**: Applied XGBoost's Random Forest Regressor models to predict soil moisture from various Earth observation products such as the European Space Agencies Sentinel platform.

**Segmentation Networks**: Trained, tuned and evaluated a Feature Pyramid Segmentation Network to classify active wildfires via Earth observation data sets.

Processing Pipelines: Automated processing pipelines for Earth observation and remote sensing products.

UVic Aero Club Victoria, BC

Software Lead May 2017 - April 2020

**Networking and Communications**: Python's socket library to implement UDP video streaming platform.

Electrical Systems: Soldering, motor control, and serial protocol applied to ground vehicle control system.

**Leadership and Project Management**: Executive leader for a team of 10+ software developers through various aerospace projects. Using development tools and concepts such as *Git*, issues, backlogs, and pull requests.

**Interdisciplinary Operation**: Practiced communication and development through various interdisciplinary projects involving software, electrical and mechanical engineers.

SES Consulting Victoria, BC

Software Engineer January 2019 - Aug 2019

**Front-End**: Utilized cutting edge front-end tools such as JavaScript, React and Storybook. Optimization of state management in a web application with resources such as React's *hooks* and *context*.

**Back-End**: Endpoint development using the *Django* framework and *PostgreSQL DBMS*.

Agile Development Process: Exercise the scrum agile development process with Jira and Git.

Data Structures: Reduce front-end render time via data structures such as adjacency matrices and hash tables.

Design System: Component library for a React development team to quickly access properties of components.

Barnacle Systems
Victoria, BC
Software Engineer
Oct 2017 - Dec 2017

**Embedded C**: Develop daemons on the Legato framework to monitor the accelerometer on an IoT platform(mangOH WP85). Made use of Industrial Input-Output and low-level device drivers.

Software Deployment: Oversee deployment and managing software updates to a network of IoT devices.

Linux and Drivers: Work with a custom Linux distribution while developing low-level daemons on a marine vessel IoT device. Experience with drivers, micro-processors, IIO, and systems.

## PROJECTS

**Echo Synth**: Synthesizer written in Python, designed to modify and recreate sounds that occur in the natural world. **Battle Snake**: A-Star shortest path algorithm applied to a bot that plays a competitive game of snake.

Collaborative Playlist Generator: Web application for automating collaborative playlists using the Spotify API.

**Distributed Video Annotation**: A distributed architecture with *Python* and *Kubernetes* to annotate video context.

Cognitive Load Classifier: Boosted tree classifier trained to identify the presence of cognitive load from EEG input.