

# ALEXANDER KINGSLAND

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## EDUCATION

### Bachelor of Engineering – Software Engineering

September 2016 – April 2021

McMaster University | Hamilton, ON

- Currently maintaining a 3.5 GPA on a 4.0 scale, emphasis in **Data Structures & Algorithms** and **Software Design**.
- Received golden key award for students in the faculty of Engineering with a cumulative GPA in top 15% of the faculty.
- **Top Courses:** SE Design III, SE Project Management, SE Testing, Dynamic Systems, Linear Optimization

## WORK EXPERIENCE

### MDA Corporation – Software Engineering Internship

April 2019 – August 2020

Machine Learning R&D

Brampton, ON

- Developed a **Machine Learning** pipeline to successfully predict rate limits of the Canadarm within **10%** accuracy.
- Created documentation and courseware modules covering concepts implemented in the pipeline and held weekly meetings to ensure a seamless transfer of knowledge to the software engineers taking over the project.
- **Tech Stack:** Python, HDF5, Numpy, MATLAB, TensorFlow 1.x/2.x, Matplotlib, Git, Oracle VM, Bash, Paramiko

### Johnson Controls – Software Engineering Internship

July 2018 – August 2018

Systems Integration

Concord, ON

- Setup security systems to perform stress tests and verify functionality as according to requirement specification.
- Setup firmware of certain components to be used in EFTs and created a script to speed up the documentation process.
- **Tech Stack:** MS Excel, Git, Bash, Python, MS Word, Windows, Linux

### Exactus Energy – Engineering Internship

June 2017 – November 2017

Solar Engineer in Training

Toronto, ON

- Visited client buildings to record the dimensions of attic structure and sign papers authorizing solar panel installation.
- Optimized the solar panel layout on the client's roof in AutoCAD, design is approved then sent to the builders.
- **Tech Stack:** AutoCAD, MS Word, MS Excel, DJI Pro App, DJI Phantom 3 Pro, Dropbox

## PROJECTS

### HedgeHog – AlgoTrading Platform

March 2020 – Present

Software Application

- Software application that automates investment portfolio trading using custom delta hedging strategies.
- Application automates trading in real time by analyzing, triggering, and implementing strategies via brokerage API.
- **Tech Stack:** Python, Numpy, Pandas, CSV, ibapi, Dropbox

### StudentHousingBoard – Offcampus Housing Postboard

September 2020 – Present

Software Application

- Centralized off campus housing website which is designed to help tenants and landlords rent housing.
- Application supports multiple users, database storage, online chat, and custom room ranking algorithm.
- **Tech Stack:** TypeScript, HTML, CSS, Redux, JavaScript, MongoDB, Docker, Git, VS Code

### ProFlightPhotography – Drone Photography

July 2017 – Present

Start Up

- Selling the service of aerial photo shoots for realtors and private car collectors.
- Purchased a drone, marketed myself, created a website, business cards, and learned the basics of starting a business.
- **Tech Stack:** DJI Pro App, DJI Phantom 4 Advanced, Adobe Photoshop, Adobe Lightroom

## SKILLS

#### Languages:

- Python, Java, C#, C
- HTML, CSS, JavaScript
- MATLAB, R

#### Tools & Technologies:

- Git, Bash, LaTeX
- Unity, Linux, Windows
- Docker, MongoDB, HDF5

#### Libraries & Frameworks:

- TensorFlow, Numpy, Pandas
- React, NodeJS, Paramiko
- PyQt, Matplotlib, ROS