# **JOSHUA KEARNEY**

**Junior Mechanical Engineer** 

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### **EDUCATION**

B.Eng. Mechanical Engineering

**Memorial University** 

Cumulative GPA: 3.61/4 (81%)

Sep 2014 – Apr 2019 St. John's, NL

#### **ENGINEERING EMPLOYMENT**

### **Vehicle Software R&D Engineering Intern**

**General Dynamics Mission Systems** 

Sep 2018 – Dec 2018 Ottawa, ON

- Developed and implemented a military networking software for a next-gen vehicle smart display computer
- Coded and tested embedded Linux software, creating a database to access Linux drivers (Yocto/Embedded C)
- Collaborated through an Agile development cycle using Git, Bitbucket, and Jira

## **Electromechanical Systems Engineering Intern**

Jan 2018 – May 2018 St. John's, NL

DuXion Motors Inc.

- Designed an electric aircraft motor cooling system that reduced the system temperature by 50%
- Created FEA/CFD/CAD models to optimize thermal performance of a high-power density electric motor

## **Mechanical Engineering Intern**

Kraken Robotics Inc.

May 2017 – Aug 2017 St. John's, NL

- Designed and manufactured a proprietary underwater electronic system for an AUV vehicle
- Reduced cost on AUV vehicle fins by 90% through implementing an in-house injection molding process
- Set up, launched, and recovered an AUV vehicle during open sea trials

## **Armored Vehicle Testing Engineering Intern**

**Rheinmetall Landsysteme Defence GmbH** 

Sep 2016 – Dec 2016 Unterlüß, Germany

- Developed the electronic packaging system that protects the Puma IFV battle tanks communication network
- Created a project plan, organized engineering meetings, and designed military engineering documentation
- Environmentally tested military systems to military standard guidelines (MIL-STD-810)

## **Electronic Systems Engineering Intern**

Bell Canada

May - Aug 2015, Jan - May 2016 St. John's, NL

• Designed and manufactured ruggedized electronic enclosures, installed and repaired radio board modules

#### **EXTRACIRRCIULAR**

## **Software Designer**

Jan 2017 – Present

St. John's, NL

**Eastern Edge Robotics** 

Designed an underwater robotic vehicle chassis and manufactured using CNC router

- Developed computer vision and embedded system communication robotic technology
- Competed in 2017 & 2018 International MATE ROV Competitions (CA, WA), placing 5<sup>th</sup> & 8<sup>th</sup> overall

#### **SKILLS AND ACTIVITIES**

Programming: MATLAB | Python | Embedded C | Linux/Bash | Arduino | ARM

Software: Git | Docker | Xilinx/Yocto | Jira | Unigraphics/SolidWorks | GD&T | Ansys | Fluent Instrumentation: Electronic Test Equipment | 3D Printing | Laser Cutting | CNC | Hand/Power Tools

Projects: Magnetically Controlled Lamp | Vehicle Detection Program | Python Web Scraping Program

Volunteering: Competitive Swim Team Head Coach | Resident Assistant & Engineering Tutor

Interests: Robotics | Reading | Swimming | Travel