

# JOSHUA P. KEARNEY

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## Education

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### Bachelor of Mechanical Engineering (Co-op)

Sep. 2014 – Apr. 2019

Memorial University of Newfoundland

GPA(CGPA): 4/4 (3.56/4)

## Employment

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### Vetronics R&D Software Engineering Intern

General Dynamics Mission Systems

Ottawa, ON

Sep. 2018 – Dec. 2018

- Created an SNMP networking protocol for a military grade smart display unit
- Developed and tested embedded Linux software and developed a system database (Embedded C)
- Collaborated through an Agile development cycle using tools such as Git, Bitbucket, Jira, and Docker

### Electromechanical Systems Engineering Intern

Jan. 2018 – May 2018

DuXion Motors Inc.

St. John's, NL

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

### Robotic Vehicle Component Design Intern

May 2017 – Aug. 2017

Kraken Robotics Inc.

St. John's, NL

- Designed and manufactured an underwater electronic packaging system for an AUV vehicle
- Reduced cost on AUV vehicle fins by 90% through implementing an in-house injection molding process

### Armored Vehicle Protection Intern

Sep. 2016 – Dec. 2016

Rheinmetall Landsysteme Defence GmbH

Unterlüß, Germany

- Developed the electronic packaging system that protects the Puma IFV battle tanks communication network
- Environmentally tested military systems to military standard guidelines (MIL-STD-810)

### Electronic System Engineering Intern

Jan. 2016 – May 2016

Bell Canada

May 2015 – Aug. 2015

St. John's, NL

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

## Achievements

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### Electromechanical Systems Design

Jan. 2017 – Present

Eastern Edge Robotics

- Developed distributed system control software and embedded system software for an underwater robot
- Designed and manufactured an underwater robotic vehicle chassis
- Competed in 2017 & 2018 International MATE ROV Competitions (CA, WA), placing 5<sup>th</sup> & 8<sup>th</sup> overall

## SKILLS

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<b>Programming:</b>	Embedded C   Python   C++   Linux/GNU   Bash   MATLAB   Arduino   Mbed
<b>Software:</b>	Git   Docker   Embedded Yocto   SolidWorks   Unigraphics   Ansys Fluent   PCB Design Software
<b>Machinery:</b>	CNC Milling   3D Printing   CO2 Laser Cutting   Power & Hand Tools
<b>Certifications:</b>	Red Cross First Aid   Mental Health First Aid   Canadian Driver's License

## EXTRACURRICULAR ACTIVITIES

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<b>Projects:</b>	Portfolio Website   Magnetically Controlled Lamp   Custom 3D printer
<b>Volunteering:</b>	Head Coached Competitive Swimming   Resident Assistant & Engineering Tutor
<b>Interests:</b>	Robotics   Embedded Systems   Web Dev   Reading   Swimming   Travel
<b>Recent Reads:</b>	When Breath Becomes Air   Gödel, Escher, Bach   Mindset   Snow Crash