Stewart C. **Jamieson**

Graduate Student · Autonomous Robotics

sjamieson@mit.edu | www.stewartjamieson.com | SJamieson | stewart-jamieson

A roboticist working to invent autonomous systems that can learn to make decisions using vast quantities of unstructured information.

Education

Woods Hole Oceanographic Institute — *Woods Hole, Massachusetts*

Ph.D. in Applied Ocean Science and Engineering — *June 2018 - Present*

- Enrolled in the MIT-WHOI Joint Program, supervised by Dr. Yogesh Girdhar (WHOI) and Prof. Jonathan How (MIT)
- Developing robots and algorithms for autonomous exploration of unknown marine environments

Massachusetts Institute of Technology (MIT) — *Cambridge, Massachusetts*

S.M. in Aerospace Engineering (4.0/4.0 CGPA) — *June 2018 - Present*

University of Toronto — *Toronto, Canada*

B.A.Sc. in Engineering Science, Robotics Major (3.83/4.0 CGPA) — *Sept. 2013 - Apr. 2018*

Skills

Artificial Intelligence	Topic Modelling, Deep Learning for Vision, Neural Networks, Unsupervised Learning
Robotics	ROS, Computer Vision, Multi-Agent Path Planning, Controls
Programming	C++14, Python3, OpenCV, Java, MATLAB, Android, Bash, R

Experience

Zebra Technologies Inc. — *Mississauga, Canada*

Software Engineering Intern, Engineering Product Innovation Team — *May 2016 - Aug. 2017*

- Developed software applications and libraries for both mobile devices and high-performance servers
- 16 months of experience with C++14 for networking, data processing, and multithreaded computing
- Helped to research and present business applications for machine learning

Wattpad Inc. — *Toronto, Canada*

Android Software Developer, Reader Acquisition Team — *May 2015 - Sept. 2015*

- Implemented features to attract new users, as well as A/B tests to validate each features' success
- Developed strong teamwork and communication skills by working in a multi-platform feature team

QA Software Developer, Android Core Team — *May 2014 - Sept. 2014*

- Searched for, reported, and fixed software bugs in an Android mobile application with over 15 million users
- Managed the translation and localization of the application into 18 languages
- Designed and implemented a virtual doorman to greet company visitors and notify staff

Extracurricular Activity

aUToronto Self-Driving Car Team — *Toronto, Canada*

Software Team Lead — *June 2017 - June 2018*

- Won 1st place in Year One of the SAE/GM AutoDrive Challenge
- Led a team of 12 graduate and undergraduate students to help make an autonomous Chevrolet Bolt
- Team developed the overall system software architecture, sensor drivers, vehicle control interface, software services

Zebra Technologies Inc. — *Mississauga, Canada*

Editor, EMC Innovation Newsletter — *May 2016 - Aug. 2017*

- Edited bi-monthly department newsletter and distributed it to over 1700 engineers
- Commissioned, reviewed, and published articles about recent trends and innovations

Corpus Christi Jazz Horns and Concert Band — *Burlington, Canada*

Saxophonist — *Sept. 2009 - June 2013*

- Performed in the Atlantic Music Festival (2013), Toronto Music Festival (2012)

Honors & Awards

International

2018	**1st Place,** SAE/GM AutoDrive Challenge	*Yuma, Arizona*

Domestic

2018	**Dean's Honour List,** University of Toronto	*Toronto, Canada*
2014-16	**Dean's Honour List (x3),** University of Toronto	*Toronto, Canada*
2013	**Governor General's Bronze Medal for Academic Excellence,** High School Graduation	*Burlington, Canada*
2013	**Regional Champion,** ECOO Programming Competition	*Halton, Canada*
2010-13	**School Champion (x4),** Waterloo CEMC Math Contest	*Burlington, Canada*

Presentations

An Introduction to Neural Networks and Machine Learning — *Mississauga, Canada*

Presenter for Zebra Technologies Inc. "Lunch & Learn" — *Jan. 2017*

- Introduced the fundamental concepts of neural networks & machine learning to over 200 engineers
- Shared results of a research investigation into relevant business applications of neural networks

Should Robots Have Rights? — *Toronto, Canada*

Presenter in Debate at the University of Toronto — *Dec. 2015*

- Participated in a debate to affirm that sufficiently "intelligent" robots should be awarded basic rights

A Customized Graphical Checklist for Efficient Ambulance Inventory — *Toronto, Canada*

Presenter in "Praxis II Showcase" at the University of Toronto — *Apr. 2014*

- Developed a low-cost, computer-generated checklist to improve efficiency for resupplying ambulance inventory
- Presented results of a 3-month engineering team design project to attending professors, paramedics, and CBC Radio

Publications

Girdhar, Y., Cai, L., *Jamieson, S.*, McGuire, N., Flaspohler, G., Suman, S., & Claus, B. (2019). **Enabling Co-Robotic Scientific Exploration of Unknown Environments over a Low Bandwidth Communication Channel.** In IEEE International Conference on Robotics and Automation. Montreal, Canada.

Jamieson, S. (2018). **Deep Learning for Robust Vision in Realtime Autonomous Driving.** University of Toronto.

Professional Activities

Graduate Student Member — *Worldwide*

IEEE (Institute of Electrical and Electronics Engineers) — *Nov. 2013 - Present*