

Aidan Malone

Engineering Designer

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👤 [A-Malone](#) [in Aidan Malone](#)

About

Aidan is a 4th year student in the Robotics option of Engineering Science at the University of Toronto. An engineering designer first, Aidan builds upwards from fundamentals to deliver elegant and efficient solutions to problems, exemplified by his work at ILead and Intel. His past projects span everything from mechanical and circuit design to machine learning and game development. After hours, he spends his time playing Ultimate Frisbee and improving his blacksmithing skills.

Skills

Software Development

Advanced



C/C++ Python Java

Self-studied MIT

OpenCourseWare 6.006 to gain deeper understanding of data structures and algorithms.

Machine Learning

Intermediate



Tensorflow Primitives

Experience with common frameworks, and expertise in designing and implementing the underlying primitives.

Robotics

Intermediate



Circuits Control AI

Experience implementing various localization and control techniques such as kalman filtering and PID control.

Development Tools

Advanced



Git Perforce CentOS

Exposure to a variety of development environments and their accompanying toolsets.

Experience

Intel Programmable Solutions Group

May 2017 - Present

Machine Learning Intern

Research and development of Intel's FPGA-based Deep Learning Inference Accelerator (DLIA), optimizing OpenCL machine learning primitives to improve inference throughput.

- Developed in-depth understanding of hardware parallelization of machine learning models, and benchmarking of common network topologies for data center and automotive applications, such as GoogleNet, VGG, and SSD.
- Reduced system resource utilization by 10% and optimized critical paths, leading to a 10% increase in inference throughput across the graph set.

Intel Programmable Solutions Group

May 2015 - August 2016

Software Engineering PEY Intern

Improved the usability of FPGA CAD software and floorplanning tools, building customer visible features for the Blueprint Platform Designer and Chip Planner.

- Designed and implemented rendering level of detail system, reducing draw time of chip resources and design elements in Chip Planner, a design visualization tool, by 96%.

University of Toronto, ILead

May 2014 - September 2015

Software Development Summer Student

🌐 <http://ilead.engineering.utoronto.ca>

Design of a to-scale online system designed to promote the development of team skills in engineering undergraduates. This system is now used by more than a thousand students every year, and is in the process of expanding to serve universities across North America.

Education

University of Toronto

2013 - Present

Bachelor of Applied Science

Engineering Science 🎓 GPA: 3.85

Specialization in robotics, emphasizing controls, localization, machine learning, and software. Achieved dean's list status in every semester, with a highest class ranking of 9/250 in the Winter 2014 semester, and most recent ranking of 14/192.

ECE253: Digital and Computer Systems

CSC384: Algorithms and Data Structures

CSC411: Machine Learning

Awards

30 June 2015

Riot Games API Challenge, Runner-up
Riot Games

17 February 2015

2015 Capital One Data Mining Cup, Top 4
Capital One

8 February 2014

Biomedical Eng. Competition 2014, 2nd Place
Club for Biomedical Engineering, UofT