Denis Trailin

denis.trailin@gmail.com • +1 (403) 402-2195 • linkedin.com/in/dtrailin

EDUCATION

University of British Columbia, Vancouver, British Columbia — Sep 2014 – May 2019
Bachelor of Science (B.Sc) in Computer Science

National University of Singapore, Singapore — Jan 2018 – May 2018
Exchange Student

WORK EXPERIENCE

Microsoft, Redmond, Washington — Jun 2018 – Aug 2018
Azure Service Fabric - Software Engineering Intern

- Increased developer visibility on excessive tracing in Service Fabric, a major problem impacting production observability
- Built an extendable and configurable tool using C# to run simulated Service Fabric loads
- Created tests to detect increases in tracing across builds by measuring statistical deviation from a baseline

Bloomberg LP, New York City, New York — May 2017 – Jul 2017
Feeds Distribution Infrastructure - Software Engineering Intern

- Fixed major point of failure for real time news feeds while keeping the system high performance and backwards compatible
- Updated distributed uniqueness checking server written in C++ to use an arbitrary number of nodes instead of the previous limit of two
- Implemented dynamic leadership switching and leadership elections to the uniqueness server using Apache Zookeeper

Hootsuite, Vancouver, British Columbia — Jan 2016 – Aug 2016
Android Team - Co-op Software Developer

- Supported transition from Java to Kotlin as main Android programming language
- Worked with other team members to push out critical features such as YouTube streams, Publisher approval streams, and re-auth for the core app
- Published 2 blog posts for the official Hootsuite engineering blog on unit testing with RxJava (link) and Kotlin (link)

University of British Columbia, Vancouver, British Columbia — Jan 2017 – Dec 2017
Teaching Assistant

- Taught CPSC 213, Introduction to Computer Systems, a course focused on C and assembly
- Led labs of 30 students, graded assignments and invigilated exams

Trace Intelligent Systems, Calgary, Alberta — Jul 2015 – Aug 2015
Contractor

- Integrated existing open source object tracking C++ libraries into a common framework for deployment to drones and tripod based cameras
- Performed performance and accuracy profiling of vision tracking algorithms
- Created a human detection model using Dlib's machine learning functionality

EXTRA CURRICULAR ACTIVITIES

UBC Sailbot, Vancouver, British Columbia — Sep 2015 – Present

- Worked on autonomous sailboat that broke the record for farthest autonomous crossing of Atlantic
- Built obstacle detection software for thermal cameras using computer vision and machine learning in C++. System had a 0.001% false positive rate (which minimized unnecessary movements) and a detection rate of 40%.
- Created microservice for satellite boat communication in JavaScript using Node.js
- Worked on web services for receiving and analyzing boat information written in Sails.js and Angular.js

FIRST Robotics Team 4334, Calgary, Alberta — Sep 2012 – May 2014

- Joined the team that won 2 regional competitions and a division at the world championships as a founding member
- Worked on robot code and implementing key systems such as PID in Java

PROJECTS

Resupplie — Mar 2017

- Built an Internet of Things fridge that uses deep learning to detect food and KNN to recommend recipes and ingredients based on the fridge's contents
- Won the CA Technologies 2nd prize for Best IoT hack at nwHacks

Baby Monitor — Feb 2016

- Built an Internet of Things baby monitor using Android, Node.js, and the Intel Edison
- Won 3rd place overall and the CA Technologies prize for Best IoT App with Mobile Interface at nwHacks