

Taylor Lloyd

SOFTWARE DEVELOPER · COMPUTER SCIENTIST

Edmonton, Alberta, Canada

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Education

University of Alberta

M.Sc. COMPUTING SCIENCE (EXPECTED)

Edmonton, Alberta

May. '16 - PRESENT

University of Alberta

B.Sc. SPECIALIZATION IN COMPUTING SCIENCE WITH DISTINCTION

- GPA 3.6

Edmonton, Alberta

Sept. '10 - Apr. '16

Experience

IBM Canada, Compilers Group

SOFTWARE DEVELOPER INTERN - TORONTO PORTABLE OPTIMIZER

- Assisted in implementing GPGPU offloading with OpenMP 4.5 in xLC
- Created and prototyped new GPGPU optimization strategies
- Evaluated GPGPU performance limitations in a variety of benchmarks

Toronto, Ontario, Canada

Dec. '15 - May '16

Amazon.com

SOFTWARE DEVELOPER ENGINEER INTERN

- Designed, Implemented, and Supported Android applications and OS modifications for use within Amazon Fulfillment Centers
- Developed application to access thousands of security cameras while managing network constraints
- Worked with a small (4-6) person team under an Agile Continuous Delivery process to support thousands of devices and customers.
- Created a templating language and application to allow business leaders to rapidly deploy process-oriented workflows world-wide
- Ported and integrated the Kerberos Single-Sign-On libraries to Android

Seattle, Washington, USA

Sept. '13 - Mar. '14, June '15 - Aug. '15

IBM Canada, Cloud Innovation Lab

SOFTWARE DEVELOPER INTERN

- Developed a novel programming language and compiler for GPGPU execution. Work included writing language specifications, implementing compiler optimizations, and extending the language runtime
- Developed a cloud-based javascript library and framework for big-data processing on lightweight devices. Tasks were transparently sent to autoscaling Spark clusters for execution, with results returned in real-time.
- Implemented automated testing and deployment with GitLab and Jenkins

Toronto, Ontario, Canada

May '14 - Aug. '16

Skills

Programming Languages Java, Scala, CUDA, C++, Node.JS, LaTeX

Platforms & Frameworks Android, LLVM, Serverless

Areas of Interest Compiler Optimizations, Heterogeneous Computing, Big-Data, Mobile Development, Security

Honors & Awards

2013, 2015 **Dean's Honor Roll**, University of Alberta

Edmonton, AB

2013 **Undergraduate Student Research Award(USRA)**, NSERC

Edmonton, AB

2013 **Amdahl Academic Scholarship in Computing Science**, University of Alberta

Edmonton, AB

2011, 2012 **Jason Lang Academic Excellence**, University of Alberta

Edmonton, AB

2010 **Academic Excellence**, University of Alberta

Edmonton, AB

2009 **First Place - Iverson Computing Science Exam**, University of Alberta

Edmonton, AB

Publications

Modern analytics with the IBM Dash Compiler

13TH COMPILER-DRIVEN PERFORMANCE WORKSHOP - CASCON

Markham, Ontario, Canada

Nov '14