Taylor **Lloyd**

SOFTWARE DEVELOPER · COMPUTER SCIENTIST

Edmonton, Alberta, Canada

(+1) 206 861-9523 | taylor@taylorlloyd.ca | taylorlloyd | taylor-lloyd

Education

University of Alberta   *Edmonton, Alberta*

M.Sc. COMPUTING SCIENCE (EXPECTED)   *May. '16 - PRESENT*

University of Alberta   *Edmonton, Alberta*

B.Sc. SPECIALIZATION IN COMPUTING SCIENCE WITH DISTINCTION   *Sept. '10 - Apr. '16*
- GPA 3.6

Experience

IBM Canada, Compilers Group   *Toronto, Ontario, Canada*

SOFTWARE DEVELOPER INTERN / CAS STUDENT FELLOW - TORONTO PORTABLE OPTIMIZER   *Dec. '15 - May '16*
- 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

Amazon.com   *Seattle, Washington, USA*

SOFTWARE DEVELOPER ENGINEER INTERN   *Sept. '13 - Mar. '14, June '15 - Aug. '15*
- Designed, Implemented, and Supported Android applications and OS modifications for use within Amazon Fullfillment 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

IBM Canada, Cloud Innovation Lab   *Toronto, Ontario, Canada*

SOFTWARE DEVELOPER INTERN   *May '14 - Aug. '16*
- 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

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   *Markham, Ontario, Canada*

13TH COMPILER-DRIVEN PERFORMANCE WORKSHOP - CASCON   *Nov '14*

GPGPU Offloading with OpenMP 4.5 in the IBM XL Compiler   *Markham, Ontario, Canada*

15TH COMPILER-DRIVEN PERFORMANCE WORKSHOP - CASCON   *Nov '16*