

Professional Experience

- 09/17 – Pres. Software Engineer, Google
- 06/13 – 12/13 Research Intern, IBM, T.J. Watson Research Centre
- Built a static analysis tool to find code regions hardware accelerators can target.
 - Incorporated state of the art compiler techniques such as loop memory dependence analysis.
 - In use at IBM Research till end of 2015 (2.5 years).
- 01/11 – 08/17 Research Assistant, Computer Architecture Research Group, Simon Fraser University
- Program abstractions for hardware accelerators. (MICRO'16, HPCA'17, HPCA'18)
 - Path based dynamic characterization for hardware accelerators. (IISWC'16)
 - Coherence protocols for hardware accelerators. (ISCA'15)
 - Variable granularity caching mechanisms. (MICRO'12, ISCA'13)

Academic

- 05/13 – 11/16 **PhD in Computing Science**, *Simon Fraser University*, British Columbia, Canada, 4.0/4.0.
- 01/11 – 04/13 **MSc in Computing Science**, *Simon Fraser University*, British Columbia, Canada, 3.8/4.0.
- 08/06 – 04/10 **B. Tech in Computer Engineering**, *BPUT*, Orissa, India, 8.3/10.0.

Technical Skills

Compiling for accelerators, workload analysis and microarchitecture modeling

Languages C++11, C, Python

Frameworks LLVM compiler infrastructure, Intel Pin

Awards

- 08/16 President's PhD Scholarship, Simon Fraser University
- '16, '14, '12 Graduate Fellowship, Simon Fraser University
- 01/14 Special Graduate Entrance Scholarship, Simon Fraser University

Projects

- 01/15 Networks: Parallel implementation of Kou, Markowsky and Berman (1981) algorithm
- 04/14 Natural Language Processing: Optimizing the Bitpar CKY parser
- 12/11 Computational Geometry: Interactive demo for the Linear Cell Complex (CGAL)
- 04/11 Machine Learning: Non-Negative Matrix Factorisation for large datasets

Leadership

- 05/12 – 03/13 Councillor, Graduate Student Society, Simon Fraser University
- 11/08 – 07/10 Microsoft Student Partner
- 09/09 – 07/10 Treasurer, IEEE Student Chapter