+1 (778) 952 3288
amiralis@sfu.ca
www.sfu.ca/~amiralis/
amsharifian
sfu-arch

Amirali Sharifian

Work Experience

2014–Current **Simon Fraser University**, *Research Assistance*, Computer Architecture Lab,
* Developed μIR – An intermediate representation for hardware generation.
* Developed *Dandelion* – A compiler infrastructure for High-Level Synthesis (HLS).
* Developed *Chainsaw* – A novel architecture for accelerating program traces.

2018–2020 **Huawei Technologies**, *Research Engineer (Contract)*, Vancouver–Canada,
* Developed LLVM Backend for a custom RISC Processor.
* Developed EDA Tool Chain for a CGRA accelerator.
* Developed LLVM analyze passes for application domains. .

Education

2017–Current **Ph.D. in Computing Science**, *Simon Fraser University*, Canada.
Supervisor: Dr. Arrvindh Shriraman

2014–2016 **M.Sc. in Computing Science**, *Simon Fraser University*, Canada.
Thesis: Specialized Macro-Instructions for Von-Neumann Accelerators

2009–2014 **B.Sc. in Computer Engineering**, *Isfahan University of Technology*, Iran.

Technical skills

Languages C/C++, Scala, Python, Verilog/VHDL
Infrastructure LLVM Compiler Infrastructure, Intel Pin
Design Tools Vivado, Quartus, Modelsim, Design Compiler

Publications

2019 **μIR - An intermediate representation fortransforming and optimizing the microarchitecture of application accelerators** .
Amirali Sharifian, Reza Hojabr, Navid Rahimi, Sihao Liu, Apala Guha, Tony Nowatzki and Arrvindh Shriraman, In Proc. of the 52th Intl. Symposium on Microarchitecture, (MICRO) , 2019.

2018 **TAPAS: Generating Parallel Accelerators from Parallel Programs** .
Steve, Margerm, Amirali Sharifian, Apala Guha, and Arrvindh Shriraman, In Proc. of the 51th Intl. Symposium on Microarchitecture, (MICRO) , 2018.

2016 **CHAINSAW: Creating Von-Neumann Accelerators with Fused Instruction Chains** .
Amirali Sharifian, Snehasish Kumar, Apala Guha, and Arrvindh Shriraman, In Proc. of the 49th Intl. Symposium on Microarchitecture, (MICRO) , 2016.

Peruse and Profit : Estimating the Accelerability of Loops .
Snehasish Kumar, Vijayalakshmi Srinivasan, Amirali Sharifian, Nick Sumner and Arrvindh Shriraman, In Proceedings of the 30th ACM International Conference on Supercomputing , ICS 2016.

2013 **An Energy-Efficient Clustering Algorithm for Large Scale Wireless Sensor Networks**.
Maryam Soleimani, Amirali Sharifian, and Ali Fanian, The 21st Iranian Conference on Electrical Engineering (ICEE 2013).