

Milad Hakimi

Curriculum Vitae

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Education

- 2020–now **M.Sc. in Computer Science**, Simon Fraser University, Vancouver, Canada.
○ under supervision of **Prof. Arrvindh Shriraman**
- 2015–2020 **B.Sc. in Computer Engineering**, GPA: 3.46/4, University of Tehran, Tehran, Iran.
○ **B.Sc. Thesis:** "*Predicting the Network Traffic in Data Centers*," under supervision of **Prof. Ahamad Khodari**

Research Experiences

- 2018–2019 **Research Assistant**, Institute for Research in Fundamental Sciences.
- Implementing a stochastic multiplier based convolution calculator and adding it to Tensorflow so that it can be used as one of its default functions.
 - **CloNet:** A NOC hardware accelerator for neural networks. It was a hierarchical network of switches and routers connecting the processing elements on FPGA. Considering the fact that most of the messages in the system are broadcast or multicast, it reduced the delay of the network significantly in comparison to Mesh architecture.

Selected Projects

Course Projects

- **Database Systems II**
Database Engine(YASE): YASE is a database engine that consists different components such as Storage Management, Indexing, Logging, and Concurrency Control(Locking). It can also be tested using the standard benchmarks like TCP-C.
- **Hardware and Software Co-Design**
hardware accelerator: An accelerator for neural networks by implementing a multi layer perceptron on NIOS II and use it as custom instruction instead of a cpu-based MAC.
- **Realtime Embedded Systems**
Segway Machine: It's a self-balancing machine that can stand and move on its two wheels. It receives the incline and acceleration on different axis through the sensors connected to the arduino and then decides how to move in order to keep its balance.

Work Projects

- **Bia** (*Mobile Application*)

Bia is an android application that enables you to inform people when you are at a certain distance of them. It's useful when you have a date and you want to inform him/her that you are close.

- **Medyab** (*Web Application*)

Medyab is a platform to find doctors that are near you and reserve an appointment.

Experiences

Academic

2019 **Teaching Assistant**, Realtime Embedded systems, University of Tehran.

2019 **Teaching Assistant**, Operating Systems, University of Tehran.

2018 **Teaching Assistant**, Computer Networks, University of Tehran.

2018 **Teaching Assistant**, Computer-Aided Design, University of Tehran.

Work

2020 Software Engineer at Yektanet

Related Courses

- Parallel and Distributed Computing
- Database Systems II
- Compiler Design and Implementation
- Hardware and Software Co-Design
- Realtime and Embedded Systems

Skills

- **Software Programming**

c/c++ (clang, llvm), python (Keras, Tensorflow), Java, Matlab

- **Hardware Descriptor Languages and tools**

Verilog, VHDL, Chisel

Quartus, ISE, Design Compiler, Modelsim

- **Web/Mobile Developing**

Python(Django), React, React Native, Java Script

Languages

- **Persian:** Native

English, *Fluent*, TOEFL:107/120.

Interests

Reading Philosophy, Mythology, Anthropology

Music Listening to musics until I hate them

Coding Creating simple but handy applications for myself :)