

# IMAN BARZEGARI

## Graduate Student in Computer Engineering

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## EDUCATION

### M.S. in Computer Engineering - Computer Systems

#### Shahid beheshti University.

📅 Sep 2019 – Ongoing

**Thesis: Exploiting processing in memory for DNN Hardware Acceleration:** I designed and developed a framework for using in-memory processing technology for DNN hardware acceleration. The framework integrates the procedure required for converting DNN models to executable binaries. This technology enables us to process memory-intensive layers of a DNN, such as convolution layers, on memory rather than GPU or CPU.

- **Winner** of national competition for **research grant** held among all Master's and PhD students. Only 30 projects won the award.

### B.S. in Software Engineering

#### Buein Zahra Technical University

📅 Sep 2014 – Jan 2019

**Final Project: Learning Management System:** I used the state-of-the-art technology (ASP core for the back-end, angular6 for the front-end, and SQL server to manage the database) to design a fast and simple single-page learning management system. It is composed of three main modules: exam design, grading, and course evaluation.

## PROFESSIONAL EXPERIENCE

### Research Assistant

#### IPM (Institute For Research In Fundamental Sciences)

📅 Oct 2020 – Ongoing

📍 Tehran, Iran

- Experience working with DNN frameworks such as **PyTorch** and **TensorFlow**.
- Familiar with various hardware accelerators such as **Eyeriss**, **Cambricon-x** and process in memory hardware models such as hybrid memory cubes.
- Experience working with DNN compilers (**Glow**, **ONNC**, **MLIR**) for code generation on different instruction set architectures (ISA).
- Work with intermediate representation of deep neural networks such as **ONNX** and **Caffe2**.

### Senior Developer

#### EPie

📅 Aug 2015 – July 2020

📍 Tehran, Iran

- **Worked on 10+ projects** at various sizes as a full-stack developer, using different frameworks and technologies in the backend and frontend.
- Familiar with system design and architecture, software development life cycle, and agile project management.
- **Managed** an agile team of 3 in a fully-tailored Claim Management web-application for an insurance company.
- Comprehensive **full-stack development** training of **two interns** during a summer internship program. The training covered frontend and backend development using **MVC**, **EF** and **SQL**. EPie hired both interns as full-stack developers following the internship.

## AWARDS AND HONORS



### Research Grant

Winner of national competition for research grant held among all master's and PhD students (2020)



### Ranked among top 2% participants

National university entrance exam for master's studies (2019)

## TEACHING ASSISTANT

### Hardware Accelerator

#### Shahid beheshti University

📅 Spring 2021

📍 Tehran, Iran

### Test and Testability

#### Shahid beheshti University

📅 Fall 2020

📍 Tehran, Iran

## SKILLS

Python

C#

TensorFlow

PyTorch

Machine Learning

Deep Learning

Software/Hardware Co-Design

LLVM

Caffe2

MLIR

Glow

ONNX

Debugging

Trello

Docker Hub

Source Control - Git

Research

Problem Solving

Team Work

Time management

Project Management

ASP Core

SQL

Entity Framework

AngularJS

JavaScript

## SCORES



### TOEFL Total Score: 94

Reading: 25, Listening: 27, Speaking: 21, Writing: 21



### Advanced C# certificate

Total Score: 100/100 (Nov 2015)



### GRE Total Score: 298

Quant: 159, Verbal: 139