

FARZAD SHARIF BAKHTIAR

Nanaimo BC, Canada

1.604.442.6105, FarzadSBakhtiar@gmail.com

Why I am applying for this position and what you can expect

My professional experience has been with PHP, python, and enterprise/web-based systems. That said, I worked on distributed processing during my undergrad – I designed a Map-Reduce algorithm to analyze random graphs (2017).

I also took part in a high-performance computing team-competition in 2015. We came second with our multi-threaded algorithm. – *See the first two entries in Projects section.*

There might be people with more recent experience for this position, but in the long run I know I would be as good as anyone. I have enough knowledge and a will to learn and do well.

I am good with people and can work well in a team. I test and document diligently.

TOOLSET EXPERIENCE

> 1000 Hours:

Python, PHP 7 & Symfony, SQL, DOM-based JS, Git, OO Design Patterns, Algorithms

250-1000 Hours:

Java, C, Elasticsearch, Apache, Unit and Functional Testing

50-250 Hours:

Nodejs, MongoDB, Redis, Pytorch, Django, Slurm, REST, Micro-services

<50 Hours:

Hadoop, CUDA, OpenMP, AWS, Docker, Google Ads/Analytics

EDUCATION

M.Sc. Computer Science

Simon Fraser University, Burnaby BC, Canada

Supervisor Prof. Joseph Peters

Fall 2018 - Fall
2020

B.Sc. Software Engineering

Sharif University of Technology, Tehran, Iran

Supervisor Prof. Mohammad Ghodsi

Fall 2012 - Fall
2017

WORK EXPERIENCE

Videoboom Company, Tehran, Iran

Software Developer, full-time

Python, OpenRTB

January 2018 -
May 2018

Peeyade Company, Tehran, Iran

Software Developer, freelance

Python, Elasticsearch

October 2017 -
January 2018

Tezlabs Company, Tehran, Iran

Software Developer, part-time

PHP, Symfony

January 2013 -
October 2017

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PROJECTS

Connected Components of Erdős-Rényi Graphs in Map-Reduce

Spring 2017

*Sharif University, Iran - Undergraduate Dissertation - **Theoretical Work, Map-Reduce***

Designed a distributed algorithm with best-to-date average *Map-Reduce* round complexity for finding Connected Components of a family of random Graphs (Erdős-Rényi graphs).

Multi-core Skyline Computation

Summer 2015

*IPM, Iran - IEEE MEMOCODE 2015 Team-competition - **C, OpenMP***

Designed and implemented a parallel algorithm to compute the *skyline* operation over a number of data points – we placed 2nd.

Biased-attention Image Classifier

Spring 2019

*Simon Fraser University, Burnaby BC - Deep Learning Course Project - **Python, Pytorch, Slurm***

Designed a general attention module for convolutional neural networks.
Ran mass experiments on a server cluster using Slurm.
Shrunk a network by 30% while improving its accuracy.

Attention Based Neural Machine Translator with Relative Position Representation

Fall 2018

*Simon Fraser University, Burnaby BC - NLP Course Project - **Python, Pytorch***

Implemented the *Attention with Relative Position Representations* attention mechanism on the *Harvard Group's* baseline attention-based Neural Network.

Real Time Video Advertisement Bidder/Server

Spring 2018

*Videoboom Company, Iran - **Python***

Designed an *OpenRTB*-compliant streaming video advertisement server with a micro-service architecture.

Geolocation Search Engine

Winter 2018

*Peeyade Company, Iran - **Python, Elasticsearch***

Built a search system to search for locations/venues/landmarks based on the user's geo data.

Web Crawler and Search Engine

Fall-Winter 2017

*Sharif University, Iran - Information Retrieval Course Project - **Python, Elasticsearch***

Created a crawler for journal articles *Researchgate.net*.
Used *Elasticsearch* to implement search on the crawled papers.

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ERP System Redesign

*Tezlabs Company, Iran - **Symfony, PHP 7, Dom-based JS***

Redesigned the legacy ERP system and its underlying framework.

Winter 2014 -
Fall 2017

Custom Process Scheduling for the Linux Kernel

*Sharif University, Iran - Operating Systems Design Course Project - **C,***

FreeBSD

Modified the FreeBSD Linux kernel and implemented Multi-level Feedback Queue process scheduling in it.

Spring 2014