FARZAD SHARIF BAKHTIAR

Nanaimo BC, Canada 1.604.442.6105, <u>FarzadSBakhtiar@gmail.com</u>

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 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, PHP7 & Symfony2, 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

Fall 2018 - Fall 2020

2020

Supervisor Prof. Joseph Peters

B.Sc, Software Engineering

Fall 2012 - Fall

2017

Sharif University of Technology, Tehran, Iran Supervisor Prof. Mohammad Ghodsi

WORK EXPERIENCE

<u>Videoboom Company, Tehran, Iran</u>

January 2018 -May 2018

Software Developer, full-time - Python, OpenRTB

Designed a real-time video ad auctioning server with a micro-service architecture. Implemented the DSP micro-service.

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Peeyade Company, Tehran, Iran

Software Developer, freelance - **Python, Elasticsearch**

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

Tezlabs Company, Tehran, Iran

Software Developer, part-time - PHP, Symfony2

Redesigned and implemented the legacy ERP system and its underlying framework.

PROJECTS

Connected Components of Erdős-Rényi Graphs in Map-Reduce

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

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

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

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.

Web Crawler and Search Engine

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.

October 2017 -January 2018

January 2013 -October 2017

Spring 2017

Summer 2015

Spring 2019

Fall 2018

Fall-Winter 2017

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Custom Process Scheduling in the Linux Kernel

Spring 2014

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

Implemented *Multi-level Feedback Queue* process scheduling in a *FreeBSD* kernel.