Farzad Sharifbakhtiar

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Education

2018–2020	**M.Sc. in Computing Science**, *Simon Fraser University, Burnaby, BC*, *Supervisor: Prof. Joseph Peters*, CGPA 3.69/4.
2012–2014	**B.Sc in Computer Engineering**, *Sharif University, Tehran, Iran*, *Dissertation Supervisor: Prof. Mohammad Ghodsi*, CGPA 3.13/4.

Experience

Jun.2021– May.2022 — ML Engineer, Mosaicapp – *HR Management Software*, Vancouver, British Columbia.
Python, Pytest, SQL, GCP, Pandas, Asyncio, NLP
- Developed the product's core recommendation system.
- Developed the backend data to ML model pipeline.
- Implemented NLP pipeline V0.
- Created a test suite for the ML framework.

Jan.2018– May.2018 — Software Developer, Videoboom – *AdTech*, Tehran, Iran.
Python, MongoDB, OpenRTB, Microservices, REST API
- Designed a microservice real-time video ad auctioning server.
- Developed the DSP (demand side supplier) microservice.

Oct.2017– Jan.2018 — Software Developer, Peeyade – *End-user Application*, Tehran, Iran.
Python, MongoDB, Elasticsearch, REST API
- Built a search system for locations/events/content.
- Exposed a REST API.

Jan.2013– Oct.2017 — Software Developer, Tezlabs – *ERP Software*, Tehran, Iran.
PHP, Javascript, MySQL, Symfony
- Reengineered the legacy ERP system and its underlying framework.
- Turned coupled PHP5 code into object oriented PHP7 code.
- Held workshops on OOP and the new ERP framework.
- Created a test suite for the system.

Selected Projects

Summer 2020 — Adaptive Influence Diffusion, Masters Thesis, Simon Fraser University.
Influence Diffusion, Graph Analysis, Algorithms and Complexity
- Proved the Greedy Algorithm's indifference to adaptive feedback.
- Proved the Greedy Algorithm's high performance measure without feedback.

Spring 2019 — Biased-attention Image Classifier, Deep Learning Project, Simon Fraser University.
Deep Learning, Python, Pytorch, Slurm
- Designed a general attention module for convolutional neural networks.
- Ran 1000s of experiment sets on ComputeCanada servers using Slurm.
- Shrunk a network by 30% without loss of accuracy.

Spring 2017 — Connected Components of Erdős-Rényi Graphs in Map-Reduce, Undergraduate Thesis, Sharif University.
Map-reduce, Graph Analysis, Algorithms and Complexity
- Designed a Map-reduce algorithm to compute connected components in Erdős-Rényi random graphs.
- Best-to-date map-reduce round complexity.

Summer 2015	**Parallel Skyline Computation**, IEEE MEMOCODE Competition, IPM, Iran.
	Concurrency, GPGPU, CUDA, C++
	○ Researched a GPU algorithm to compute the skyline operation over dynamic data points.
	○ Our team placed 2nd. Results page: http://memocode.irisa.fr/2015/designcontest.html
Spring 2014	**Custom Process Scheduling in the Linux Kernel**, Operating Systems Design Project, Sharif University.
	Kernel Programming, C
	○ Implemented Multi-level Feedback Queue process scheduling in a FreeBSD kernel.
Winter 2014	**Predicting Properties of Nano Particles through Visual Features**, Publication, Sharif University.
	Image Processing, C++, OpenCV
	○ Extracted morphological features to predict properties of nano particles from electron microscopy images. Published in RSC Advances 2014.
	○ Publication link: https://pubs.rsc.org/en/content/articlelanding/2014/ra/c4ra10375k

Technical Skills

Strengths	Python, OOP, SQL, Testing, Algorithms and Complexity, Graph Analysis.
Practical Experience	GCP stack, Pytorch, Pandas, Django, Deep Learning, NLP, NoSQL, Concurrency.

Etc.

Languages: Persian, English, German.

Free Study: Mathematics, Psychology.

Rest: Nature, Swimming, Food, Music, Meditation.