Mohammadreza **Beyki**

SOFTWARE ENGINEER · DEEP LEARNING EXPERT

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Summary

Graduate Student in Computer Science & Applications at Virginia Tech. Expert in Deep Learning, focused on generating synthetic data-sets, loves working on distributed systems. 5+ Years of experience in the industry, specialized in development of Micro-Services on Kubernetes, System Administration, Object Storage, DNS and CDN Systems. Loves Linux and Mac, vs code and neovim user. Prefers to use Golang and Python, expert in nginx, PostgreSQL and Redis. Uses Docker & Kubernetes for everything.

Education

Virginia Polytechnic Institute and State University   *Blacksburg, VA, US*

M.Sc. IN COMPUTER SCIENCE & APPLICATIONS   *Jan. 2019 - Present*

University of Tehran   *Tehran, Iran*

B.Sc. IN COMPUTER ENGINEERING   *Sep. 2011 - Aug. 2016*

Work Experience

Café Bazaar   *Tehran, Iran*

SOFTWARE ENGINEER   *Jul. 2015 - Dec. 2018*

- Developed a Distributed Object Storage using Redhat Ceph for Café Bazaar Cloud
- Developed a Reverse Proxy that integrated Café Bazaar's IAM with Rados Gateway
- Developed a CDN Service on Café Bazaar Cloud CDN Systems and its Operator service on Kubernetes
- Developed a Distributed Global Server Load Balancer for Café Bazaar Cloud
- Developed CDN Purge and Video Conversion API Services on Kubernetes
- Migrated Café Bazaar Developers Panel from docker-compose to Kubernetes with fully integrated CI/CD Pipelines in GitLab

Café Bazaar   *Tehran, Iran*

FULL-STACK DEVELOPER   *Aug. 2013 - Jun. 2015*

- Designed and Developed "5ShanbeBazaar", a website dedicated to an event focused on mobile application developers with scheduling and ticket management
- Co-Designed and Developed Café Bazaar's Developers Panel
- Redesigned Café Bazaar's Website

Technical Skills

THEORETICAL BACKGROUND

- Experienced in Deep Learning, Design of Algorithms, Data Structures, Database Design, Networking and GPGPU

PROGRAMMING AND SCRIPTING

- Expert in Golang, C/C++, Java and Python
- Experienced Lua, BashScript, JavaScript, Node.js, Matlab/Octave, VHDL and Verilog
- Familiar with PHP and Rust

DEEP LEARNING FRAMEWORKS

- Experienced in PyTorch, Keras and TensorFlow

TECHNOLOGIES

- Expert in Docker, Kubernetes, nginx, Django, Redis and PostgreSQL
- Experienced in WebSocket, NodeJS, VueJS, ReactJS, Sass and Apache Kafka
- Familiar with neo4j and MongoDB
- I Use Git, Vim, VS Code, Docker, ZSH, ,Make and LaTeX on a daily basis

SYSTEMS

- Expert in Linux and MacOS
- Experienced System Administrator of more than 60 DNS and CDN servers

LANGUAGE

- Persian: Native
- English: Fluent (TOEFL iBT score: 113)

Research Experience

Digital Library Research Lab @ Virginia Tech *Blacksburg, VA, US*
RESEARCH ASSISTANT *Aug. 2019 - Present*
- I'm focused on generating synthetic healthcare records (EHR) using Generative Adversarial Networks while preserving privacy. I work with Dr. Fox and Ph.D. candidate Amirsina Torfi

Institute for Research in Fundamental Sciences (IPM) *Tehran, Iran*
RESEARCHER *May. 2017 - Feb. 2017*
- Developed an automatic parallelization tool that took advantage of GPUs and CPUs of the host machine
- Worked on temperature aware modeling and evaluation of real time embedded multiprocessor SoCs

University of Tehran *Tehran, Iran*
RESEARCH ASSISTANT *Feb. 2015 - Nov. 2015*
- Developed a distributed matrix multiplication platform using Golang and OpenCL on a GPU cluster (B.Sc. Thesis Project)

Interests

Software Engineering
Deep Learning & Machine Learning
Distributed Systems
High Performance Computing

Honors & Awards

2016	**Ranked 29th (among 10,000 participants)** National M.Sc. Entrance Examination in Hardware Engineering	
2015	**Outstanding School Service** ACM Student Chapter Excellence Award	
2013	**Ranked Top 30** ACM ICPC Regional Contest	
2011	**Ranked 243rd (among 300,000 participants)** National University Entrance Examination in Math and Physics	

Teaching Experience

2019	**Software Design & Data Structures** Teaching Assistant of Prof. Ellis	*Virginia Tech*
2019	**Cloud Software Development** Teaching Assistant of Dr. Back	*Virginia Tech*
2016	**Kubernetes Workshop** Café Bazaar	*UT*
2015	**Computer Networks** Teaching Assistant of Dr. Khonsari	*UT*
2014	**Internet Engineering** Teaching Assistant of Dr. Shafiee	*UT*
2014	**Data Structures in Java** ACM Student Chapter	*UT*
2013	**Introduction to Computers & Programming** Teaching Assistant of Dr. Moradi	*UT*
2013	**Web Development with RoR & JavaScript** ACM Student Chapter	*UT*

Leadership and Membership

2015	**Author** ACM Student Chapter Scientific Journal F1
2014	**Webmaster** ACM Student Chapter