

SHAYAN HOSSEINI

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SUMMARY

Software engineer with 5 years of industry experience, **3 years as a technical lead/manager**. Experienced in building large-scale backend services, led the development of systems serving **over 1000 requests per second**. Recognized by winning awards in **world-class programming competitions**. Expert in distributed systems, implemented novel systems and published in top venues.

EXPERIENCE

Software Systems Researcher at the University of British Columbia

Jan 2021 - Present

- Designed and built a high-performing **distributed key-value store** based on the Raft protocol, achieving a **40% increase in throughput** compared to state-of-the-art verified systems.
- Published my work at ASPLOS, a top-tier systems conference and was invited to deliver a talk on the topic at leading companies such as AWS and Microsoft.
- Developed open source projects, PGo and GoVector, with more than **15,000 downloads** and 300 stars on GitHub.

Research Intern at Microsoft Research Redmond

Jun 2022 - Sep 2022

- Created a system that prioritizes the most critical faulty datacenter links for fix using reinforcement learning.
- Demonstrated a 13% reduction in failures of Azure's automatic mitigation system for datacenter links.

Software Engineering Manager at Cafe Bazaar

Feb 2020 - Nov 2020

- Led a team of 10 engineers** to make a unified product from all the cloud services developed by different teams.
- Designed, implemented and shipped a billing system automating user charges, resulted in **20x faster** billing process.

Tech Lead and Product Manager at Cafe Bazaar

Jan 2017 - Mar 2019

- Joined the internal infrastructure team as the **4th member** and played a key role in the successful transition of the team into a **public cloud company** with over 50 employees in 2019.
- Led a team of 8 engineers building CDN and object storage services.
- Rolled out a distributed object storage service, **serving TBs of data and over 500 requests per second**.
- Scaled out the capacity of CDN service by 50% through deploying a new architecture utilizing cache servers.

Software Engineer at Cafe Bazaar

Jul 2015 - Jan 2017

- Implemented new features on a back-end codebase with ~100,000 lines of Python code and 30 million users.
- Managed the CDN and multiple back-end services across 15+ servers to ensure optimal performance and availability.

EDUCATION

University of British Columbia

Jan 2021 - May 2023

M.Sc. in Computer Science

University of Tehran

Sep 2015 - Aug 2020

B.Sc. in Software Engineering

TECHNICAL SKILLS

Languages	Go, Python, C/C++, Bash, TLA+
Frameworks	Django, Flask, ReactJS, Pandas, gRPC
Technologies	Git, Docker, Kubernetes, PostgreSQL, Redis, Nginx

AWARDS AND HONORS

3rd place in ACM ICPC Pacific Northwest Regional Contest

Mar 2021

Among more than 100 teams participating from the area of Pacific Northwest.

3rd, 2nd, 2nd place in ACM ICPC West Asia Region Regional Contest, respectively in 2018, 2017, 2016.

Top 1% among more than 300 teams that participate in this contest every year.

World Finalist in the 41th ACM ICPC World Finals, South Dakota, USA

May 2017

Top 0.1% among more than 45,000 students from all over the world.

Silver Medal in the 24th Iranian National Olympiad in Informatics

Sep 2014

Top 0.5% in the algorithmic programming contest among 10,000 participants in the country.