

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 **500 million requests per day**. Recognized by winning awards in **world-class programming competitions**. Expert in distributed systems, implemented novel systems, and published distributed systems research 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 (21% acceptance rate) 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 critical faulty datacenter links for the fix using reinforcement learning.
- Demonstrated a 13% reduction in failures of Microsoft 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 cloud services product from services developed by other teams.
- Designed, implemented, and shipped a billing system automating user charges, resulting in a **20x faster** process.

Senior Software Engineer at Cafe Bazaar

Jan 2017 - Mar 2019

- Joined the internal infrastructure team as the **4th member** and played a key role in the team's successful transition into a **public cloud company** with over 50 employees.
- Led a team of 8 engineers building content delivery network (CDN) and object storage services.
- Rolled out a distributed object storage service, **serving TBs of data** and **over 100 million requests per day**.
- 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 - Jul 2023

M.Sc. in Computer Science

University of Tehran

Sep 2015 - Aug 2020

B.Sc. in Software Engineering

AWARDS AND HONORS

Distinguished Artifact Award in the 28th ASPLOS conference

Mar 2023

Awarded to the top 5% of accepted papers, recognizing an outstanding artifact contributing to research and practice.

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.

TECHNICAL SKILLS

Languages Go, Python, C/C++, Java, Bash, TLA+

Frameworks Django, Flask, ReactJS, Pandas, gRPC

Technologies Git, Docker, Kubernetes, PostgreSQL, Redis, Nginx, Microsoft Azure, AWS