Iman Gholami

igholami.com | iman@igholami.com | (240) 960 6899 |

Ph.D. Candidate in Computer Science at the University of Maryland and 2017 **IOI Silver Medalist** with expertise in algorithms, competitive programming, AI, distributed systems, and large-scale data engineering. Skilled in **C++**, **Python**, system design, and big data technologies (Hadoop, Spark, Kafka). Committed, passionate **problem-solver** with strong communication and **leadership** skills, demonstrated through roles as Team Lead at Balad (10M+ MAUs) and Software Engineering Intern at Axal (YC) and Bazaar (50M+ MAUs).

SKILLS

Core Competencies: Algorithms, Data Structures, Full Stack Development, Machine Learning, Software Architecture, Problem Solving, Communication, Leadership

Languages: Python (200K+ LOC), C++ (200K+ LOC), TypeScript, Go, Java

Frameworks, React, FastAPI, Django

Cloud: Docker, k8s, AWS

DB & Tools: PostgreSQL, MongoDB, Redis, Git, CI/CD

EDUCATION

University of Maryland, College Park
PhD in Computer Science
Dec 2026

Sharif University
BSc in Computer Engineering
May 2022

AWARDS & ACHIEVEMENTS

Silver Medal at IOI 2017
66th Worldwide

2nd Place at ICPC Regional
For three years

Gold Metal at INOI
7th Nationwide

Ranked Competitive Programmer
Codeforces: Master (2300+)

TOP PUBLICATIONS

Breaking a Long-Standing Barrier: 2-ε Approximation for Steiner Forest (**FOCS'25**)

2-Approximation for Prize-Collecting Steiner Forest (**JACM'25**, **SODA'24**)

Prize-Collecting Forest with Submodular Penalties: Improved Approximation (**IPCO'25**)

Prize-Collecting Steiner Tree: A 1.79 Approximation (**STOC'24**)

EXPERIENCE

Software Engineer Intern — Axal (YC W25)
May 2025 - Aug 2025 — **San Francisco, CA**

- As a short term **founding engineer**, built and delivered an **LLM powered** code-block search with static analysis that secured a modernization contract with REI Systems.

Software Engineer — Balad (30M+ Installs)
Nov 2018 – Dec 2022 — **Tehran, Iran**

- Set up ClickHouse, Airflow, and Spark batch system and **overhauled data processes**, improving latency, query speed, reliability, and data anonymity while **cutting compute costs** by 30% and storage by 75%.
- **Modernized** the navigation system by migrating it from Java to Kotlin, **decreasing latency** by 30% and significantly improving code maintainability and developer productivity.
- Architected and deployed a **real-time traffic prediction system**, improving ETA accuracy over ATA by 35%.

Software Engineer Intern — Bazaar (100M+ Installs)
Jul 2018 – Oct 2018 — **Tehran, Iran**

- Engineered a secure, reliable internal wallet, facilitating seamless in-app transactions **for over 55M+ users**.
- Identified and fixed a **critical bug** that froze $20,000 in user funds, refunding 100 users.

RESEARCH

Research Assistant — UMD Theory Lab
Jan 2023 – May 2025 — **College Park, MD**

- Designed algorithms for Steiner Forest variants, with direct application to chip manufacturing for faster performance, smaller layouts, and lower energy use.

SELECTED PROJECTS

Intelligent Metadata Discovery — Metachamber

- Built a lightweight metadata discovery platform that accelerated enterprise data governance by automating **data catalog** generation through AI-powered schema extraction and streamlined deployment.

AI Grading Assitant — Grass

- Developed an **AI-powered** academic grading assistant that reduced TA grading effort by 90% through rubric-based scoring automation, real-time notifications, and seamless integration with existing LMS workflows.