Shirin Ebadi

Email: shirinebadi79@gmail.com Mobile: +1(720)-891-9926 Linkedin: Shirin Ebadi Github: github.com/shirinebadi

Education

PhD in Computer Engineering
University of Colorado, Boulder *Aug. 2023–present*
- **Research Focus**: Network Security, Networked Systems, Applied ML
- **GPA**: 3.98/4

B.Sc. in Computer Engineering
Amirkabir University of Technology *Sep. 2018–July 2023*
- **GPA**: 3.84/4

Relevant Coursework

• Systems for Machine Learning • Concurrent/Multi-thread Programming • Advanced OS • Advanced Algorithm Design
• Distributed Systems • Principals of Software Engineering • Database Systems • Internet of Things

Work Experience

University of Colorado Boulder
Research Assistant *Aug. 2023 - present*
- Conducted research across security and distributed systems including a virtualized SIM architecture for 5G privacy reducing linkability accuracy from 94% to 47%, a geo-distributed real-time recommender system, and an RDMA/SmartNIC-accelerated deepfake detection pipeline achieving 26.2x higher concurrency.

Snapp!
Software Engineer(Full-time) *Oct. 2021–Oct. 2022*
- Designed, developed, and maintained Khatkesh service which is responsible for calculating actual driven distance for 3 million rides per day with 99.9 % up time and less than 1 second latency.
- Migrated on-premise and legacy systems to cloud leveraging Openshift and Kubernetes which decreased the resource cost by 30% and time-to-deploy by 50%.
- Contributed to the design, development, and deployment of Kubernetes-based large-scale production services.

Exa Lab
Python Developer(Full-time) *May. 2021–Oct. 2021*
- Developed social media crawlers from scratch that can scrawl 10,000 Instagram pages in less than a second using parallel computing techniques and efficient Data Structure selection.

Publications

- **Ebadi, S.**, Moolman, Z., Lehman, T., Keller, E. (2026). *Di5Guise: 5G privacy with vSIM.* Proceedings on Privacy Enhancing Technologies, 2026.
- Tran, T., **Ebadi, S.**, Hosseini, S. M. H., Shin, W., Ram, E., Son, Y., Kim, S., Bui, N., Lee, K., Keller, E., Ha, S. (2026). *DeepSFU: Scalable deepfake detection for video conferencing.* Proceedings of ACM SIGCOMM 2026.
- Rahman, M. R., **Ebadi, S.**, Srinivasan, A., Natarajan, V., Annapareddy, T., Keller, E. (2026). *Container data item: An abstract datatype for efficient container-based edge computing.* 2026 International Conference on Computing, Networking and Communications (ICNC). IEEE.
- **Ebadi, S.**, Keller, E. (2026). *Optimizing machine learning inference serving systems: A survey.* 2026 International Conference on Artificial Intelligence, Computer, Data Sciences and Applications (ACDSA). IEEE.
- **Ebadi, S.**, Moolman, Z., Keller, E., & Lehman, T. (2025). *Poster: Decoupling the Device and Identity in Cellular Networks with vSIM.* Network and Distributed System Security (NDSS) Symposium. Distinguished Poster Award.

Selected Projects

Di5Guise, Prototype of Di5Guise paper published at PETs'26:Designed and developed a novel SIM architecture with full 5G backward support which breaks the linkability between a device and subscribers. Tools: C, C++, Trusted Execution Environment(TEE).
HTTP Monitor, Personal Project:Developed a service that monitors registered endpoints by periodically sending requests and logging any errors and triggering an alert. Users can register, login, and view the status or alerts for monitored URLs. Tools: Golang, NATS, SQLite.
VFH Obstacle Avoidance, Robotics Course Project:, Implemented a new real-time obstacle avoidance method for mobile robots, named Vector Field Histogram (VFH). Tools: Python(rospy), Gazebo.
Concurrent Containers , Concurrent Programming Course Project:Implemented several concurrent stack and queue algorithms, including a SGL stack and queue, the Treiber stack with an elimination, and the MS queue. Tools: C++.

Skills Summary

Languages:Python, C/C++, Go, Java, JavaScript
Infrastructure & Tools:Docker, GIT, AWS/GCP, Linux, Kubernetes, Jenkins(CI/CD), Jaeger, Kibana, Qemu
DB Management:PostgreSQL, MySQL, MongoDB, Redis, Cassandra, Elasticsearch