

Education

- 2022–2025 **M.Sc. in Software Engineering**, Azad University, Najafabad Branch, Isfahan, Iran
Thesis: "An optimized federated deep learning approach for intrusion detection in dew computing environments"
Advisor: Dr. Barekatin
GPA: 3.77/4.00
- 2017–2022 **B.Sc. in Computer Engineering**, University of Isfahan, Isfahan, Iran
Thesis: "Design and Implementation of an Advanced ADS-B-Based Aircraft Observation System"
Advisor: Dr. Bohlooli
GPA (last 60 credits): 3.00/4.00

Publications & Research

- In preparation **A. Fadaei**, B. Barekatin. "An Optimized Federated Deep Learning Approach for Intrusion Detection in Dew Computing Environments." Manuscript in preparation (2025). Builds upon M.Sc. thesis, introducing a lightweight CNN-based IDS integrated with federated learning for resource-constrained dew computing systems.

Research Interests

- Machine Learning Deep Learning, Federated Learning
- Cybersecurity Intrusion Detection Systems (IDS), Threat Intelligence, Cryptography, Vulnerability and Patch Management
- Computer Networks Internet of Things (IoT), Dew and Cloud Computing, Software Defined Networking (SDN), Network Virtualization, Digital Twins
- Blockchain Smart Contract Security, Distributed Ledger Technology (DLT), Sybil Attacks, Digital Identity, 51% Attacks

Selected Courses

All grades are based on a 20-point scale.

- Master**
 - Advanced Computer Networks (17.5), Advanced Network Security (18.85), Cloud Computing (17)
 - Data Mining (17), Software Architecture (17.5)
- Bachelor**
 - Algorithm Design (16), Computer Architecture (17), Operating Systems (18.04)
 - Computer Networks (16.25), Internet Engineering (17.24)

Teaching Experience

- 2024, 2025 **Backend Programming Instructor**, Dana Cup Competition, Isfahan, Iran
Taught backend development and software engineering principles to students during national programming competitions.
- 2020–2021 **Teaching Assistant**, University of Isfahan, Isfahan, Iran
 - **Compiler Design** — Fall 2021 (Supervisor: Dr. Asadi)
 - **Fundamentals of Programming** — Fall 2020 (Supervisor: Dr. Asadi)
 - **Computer Workshop** — Winter 2020 (Supervisor: Dr. Bohlooli)
- 2021 **Python Instructor**, Faculty of Agriculture, Isfahan University of Technology, Isfahan, Iran
Taught applied Python programming to agricultural science students.
- 2018–2019 **Mathematics Teacher**, Technical and Vocational School, Isfahan, Iran
Taught high school-level mathematics, including algebra and geometry, in a technical education setting.

Work Experience

- 2024–Present **Programming Instructor**, *Iran TVTO*, Isfahan, Iran
Teaching programming fundamentals and software development practices to vocational students in official training programs.
- 2022–2024 **Software Developer**, *Fardaad (ISTT)*, Isfahan, Iran
Developed tools for patch and vulnerability management; implemented new features and optimized backend algorithms.
- 2021–2022 **Backend Developer**, *Meta Menu (Poytek)*, Isfahan, Iran
Contributed to the development of a cloud-based restaurant management system as part of an agile startup team.
- 2021–2022 **Backend Developer**, *PCG Lab, Isfahan University of Technology*, Isfahan, Iran
Built a biomedical information extraction system using academic research papers; integrated NLP techniques and database storage.

Honors and Awards

- Winter 2022 Awarded *Best Bachelor's Thesis*, Department of Computer Engineering, University of Isfahan
- Summer 2022 Ranked *185th* among over 150,000 participants in Iran's National Entrance Exam for M.Sc. programs
- Spring 2025 Served as *Judge* in the 2nd National Dana Cup Competition (Computer Science – Web Application Design), Azad University, Najafabad
- Summer 2025 Graduated as *Top Student* in M.Sc. Software Engineering, Azad University, Najafabad; qualified for direct Ph.D. admission as a *Talented Student*

Skills

- Programming Languages Python, C++, Java, MATLAB
- ML & Data Science Scikit-learn, TensorFlow, Pandas, NumPy, Matplotlib, Seaborn, Jupyter Notebook
- Web Development Django, Django Rest Framework (DRF), Flask, WordPress, REST APIs
- Databases MySQL, PostgreSQL
- DevOps & System Admin Docker, Nginx, Apache, Celery, Redis
- Cloud & Virtualization VMware vCenter/ESXi, CloudSim, VDI
- Certification LPIC-1: Linux Professional Institute Certification

Test Scores

- IELTS (March 2025) Overall: 7.5 (Reading: 8.5, Listening: 7.5, Writing: 7.0, Speaking: 6.5)

References

- Dr. Ali Bohlooli**, *Associate Professor of Computer Engineering*, University of Isfahan, Faculty of Computer Engineering
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- Dr. Behrang Barekatin**, *Associate Professor of Computer Engineering*, Azad University, Najafabad Branch, Faculty of Computer Engineering
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- Dr. Shohre Ajoudanian**, *Assistant Professor of Computer Engineering*, Azad University, Najafabad Branch, Faculty of Computer Engineering
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