Mohammadamin Ahanin

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 GitHub   LinkedIn   Website   Google Scholar

Education

Bachelor of Science in Computer Engineering   *Sep 2021 – Sep 2025*
Shiraz University of Technology, Shiraz, Iran

- GPA: 16.47/20; Ranked among the top 20% of the cohort.
- Undergraduate Researcher, Laboratory of Cognitive Science & Data Science
- Teaching Assistant, Database Course
- Deputy Secretary, Artificial Intelligence Scientific Society

Honors & Awards

- Ranked in the top 1% nationwide in Iran's university entrance examination

Research Interests

- Federated Learning & Distributed Systems
- Medical Image Processing
- Natural Language Processing (NLP) & LLMs
- Disease Detection & Diagnosis
- Smart Health Monitoring Systems

Research Experiences

- Ahanin, M. *Early Detection of Alzheimer's-like Behavior Using Deep Learning and Sensor Data in a Smart Home Environment.* MLKD 2024.
- Ahanin, M. *Bridging Heterogeneous Data Silos: A Vertical Federated Learning Approach with Additive Secret Sharing for Cardiovascular Prediction.* AISoft 2024.

Professional Experience

Data Engineer, Gantoum   *Jul 2025 – Present*

- Designed and automated ETL pipelines for large-scale data integration
- Managed and optimized relational databases
- Developed data warehouse architecture for analytics workflows
- Developed interactive dashboards for real-time monitoring and actionable insights.

Data Science Intern, Ariooteam   *Sep 2024 – Mar 2025*

- Applied image segmentation and detection (SAM, YOLO) for vision tasks
- Conducted hyperparameter tuning and deployed ML models via APIs
- Contributed to customer churn prediction pipelines and documentation

Bootcamp Participant (Data Analysis), Quera   *Aug 2023 – Nov 2023*

- Completed intensive data analysis projects using Python, SQL, pandas, and Power BI
- Implemented ML models, web scraping scripts, and data visualization dashboards
- Practiced technical interviews and gained exposure to industry case studies

Selected Projects

Customer Churn Analysis and Prediction – Havayar Company

- Led full ML pipeline development, from data collection and feature engineering to preprocessing and validation
- Performed model training, hyperparameter tuning, and retraining strategy
- Deployed model via APIs and prepared technical documentation

Litopia – Laptop Sales Data Analysis

- Conducted competitor analysis and sales trend exploration
- Designed SQL database and applied Python-based ML techniques
- Built dashboards (Power BI) and web scraping pipelines for inventory data

Vertical Federated Learning Implementation

- Implemented a vertical federated learning system using **Flower framework**
- Developed client/server models with embedding exchange and gradient updates

Volunteering

Deputy Secretary, Artificial Intelligence Scientific Society *Apr 2023 – Apr 2024*
Shiraz University of Technology

- Organized technical workshops, ICPC contests, and Python training sessions
- Collaborated with Shiraz University of Medical Sciences (e.g., AI in Ophthalmology event)
- Produced technical content to promote AI learning among students

Contributor, Software Section, Cyber Sutech Journal *Mar 2024 – Present*
Shiraz University of Technology

- Wrote and edited articles on software related topics (Distributed Systems)
- Collaborated with peers on student-led publication

Skills

- **Programming:** Python, SQL, C++, Java, C#, HTML
- **Data Engineering:** ETL pipeline design, SQL Server, Databricks, GitHub Actions, APIs, Data Warehousing
- **Data Analysis & Visualization:** Python (pandas, NumPy, Matplotlib, Seaborn), Power BI
- **Machine Learning & AI:** Classical ML, Deep Learning, NLP, Image Processing, RAG (Retrieval-Augmented Generation) with LangChain
- **Frameworks & Tools:** TensorFlow, Keras, Scikit-learn, OpenCV, BeautifulSoup, Regex, Gspread, FLOWER, Roboflow, EasyOCR, Git, Telegram Bot Development (automation, AI integration)
- **Languages:** English (Advanced; TOEFL scheduled Nov 2025)

Selected Certifications

- **ETL and ELT in Python** — DataCamp, Aug 2025 (Credential ID: 42,711,435)
- **Introduction to APIs in Python** — DataCamp, Jun 2025 (Credential ID: 41,095,306)
- **Image Processing in Python** — DataCamp, Aug 2024 (Credential ID: 35,697,284)
- **Machine Learning with Python** — South Industrial Management Institute, May 2024 (Credential ID: 6113544918556482)

References

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Assistant Professor, Shiraz University of Technology
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