Koorosh Komeili Zadeh

Data Science and Artificial Intelligence Student at Leiden University

Leiden, South Holland, Netherlands

📞 (+31) 6 8782 4064 ✉ kkomeilizadeh@gmail.com in kooroshkz 🌐 kooroshkz.com

Experiences

Data Scientist and Cloud Engineer Intern – Diplora B.V. (Jun 2024 – Present)

Diplora is an innovative healthcare technology company developing AI-powered solutions for cardiac monitoring and arrhythmia detection, with projects focusing on real-time, cloud-integrated ECG sensor data analysis and response.

- Designed and implemented scalable **cloud infrastructure** on **AWS** for ECG data processing, enhancing efficiency in healthcare applications.
- Migrated legacy data systems to cloud-based solutions, ensuring seamless transition with minimal disruption to service.
- Deployed and optimized **LSTM Neural Network** models on **AWS SageMaker**, improving arrhythmia detection **accuracy by 13%**.
- Developed secure **API**s and created a dashboard for real-time **data visualization**.
- Hands-on experience with **AWS** services, **databases**, and **machine learning** in a real-world healthcare setting.

Teaching Assistant – LIACS, Leiden University (Sep 2024 – Present)

Assisting in "Foundations of Computer Science" under the supervision of Dr. Tobias Kappé and Dr. Zhaochun Ren in the course "Introduction to Programming".

Educational Mentor – Leiden University (Sep 2024 – Present)

Educational Mentor for Computer Science Pre-Master's and Data Science & AI Bachelor's and Minor programs at Leiden University, providing academic and educational support to students.

Scientific Team Member – CS50xIran (Feb 2023 – Aug 2023)

Provided scientific support for students in the "Introduction to Programming with Python and Artificial Intelligence" course, organized by CS50xIran, a representative of the Harvard University CS50 team in Iran.

Course Instructor – Amirkabir University of Technology (Oct 2022 – Sep 2023)

Instructor for "Introduction to Python Programming" at the Robotic and Artificial Intelligence Committee of the Amirkabir University of Technology scientific association.

Teaching Assistant – Iran University of Science and Technology (Aug 2022 – Jul 2023)

Teaching Assistant for the "Introduction to Robotics" course at the Iran University of Science and Technology Robotics Committee.

Education

Delft University of Technology – Minor in Quantum Science and Quantum Information (Sep 2024 – Present)

The minor program focuses on principles of quantum mechanics and their application in quantum computing and information theory.

Leiden University – BSc in Data Science and Artificial Intelligence (Sep 2023 – Present)

The program offers education in computer science, mathematics, and statistics, complemented by advanced studies in machine learning, cognitive science, and artificial intelligence. The curriculum emphasizes the practical application of AI in real-world scenarios and research-driven learning.

Amirkabir University of Technology – BSc in Computer Science (1st-Year of Bachelor)

Completed the first year of Bachelor.

Salam High School – Diploma in Mathematics and Physics (2019 – 2022)

- Total Diploma Grade: 19.38 / 20
- Final Physics Grade: 19.75 / 20
- Final Mathematics AVG (Geometry, Calculus, Discrete): 19.5 / 20

Projects

Exploring Academic Performance in General Mathematics 1

A **data-driven** case study of student performance in General Mathematics 1 at AmirKabir University. Utilized **Data analysis** and **machine learning** to uncover trends, predict final grades, and provide insights for academic improvements. View on GitHub

AcciBot - Vehicle Accident Detection Bot

Developed a **cloud-integrated** crash detection system for vehicles using **Arduino** and **AWS IoT Core**. This project used AWS for serverless data processing and AWS SNS for real-time emergency alerts, enhancing accident response time.

Skills

Soft Skills

Team Work and Leadership

Negotiation

Analytical thinking

Problem Solving

Creative Thinking

Communication and Networking

Programming Languages

Python: ★★★★☆

Java: ★★★☆☆

C++: ★★★☆☆

C: ★★☆☆☆

SQL: ★★★☆☆

HTML/CSS/JS: ★★★☆☆

Libraries & Frameworks

NumPy, SciPy, Pandas

Matplotlib, Seaborn

TensorFlow, Scikit-learn

Django, BeautifulSoup4

PyQt/PySide, Kivy

Databases

PostgreSQL

MongoDB

InfluxDB

GraphQL

AWS RDS

Cloud Platforms & Tools

AWS (EC2, S3, SageMaker, Lambda, RDS)

AWS Migration Hub, AWS Migration Hub

Microsoft Azure

Languages

Persian: ★★★★★

English: ★★★★☆

Dutch: ★☆☆☆☆

Licenses & Certifications

Supervised Machine Learning – Stanford Online (Aug 2023)
Neural Networks and Deep Learning – DeepLearning.AI (May 2023)
CS50x Introduction to Computer Science – Harvard University (Dec 2022)
Advanced Python Programming – Maktabkhooneh (Sept 2022)

Hobbies

Podcast, Tennis, Chess, Board Games, Photography

Activities

Factfulness Podcast – Review of the Factfulness book by Hans Rosling (Persian)

YouTube Channel – Financial Markets and Trading Strategy guides