Karan Homayounfar

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EDUCATION

MSc Data Science, University of the West of England, Bristol 2026 - Jan 2027 (expected)
Current taught-module average: 74.7% | Data Management Fundamentals: 82% | Machine Learning: 80%

BSc Computer Engineering, Azad University Sep 2021 - Jun 2024
GPA: 18.87/20 | Ranked 1st in the graduating class | Completed in seven semesters, one semester early

WORK EXPERIENCE

Goss & Parker Structural **Bristol, United Kingdom**
Automation and Software Developer (part-time) Jul 2026 - Present

- Serve as the firm's sole IT and software specialist, independently building and maintaining its operational tools while company staff review workflows and test releases.
- Built the site-visit scheduler used to accept client bookings, allocate engineers, write calendar events and issue confirmations and reminders.
- Added duplicate checks, two-stage review, validation and release checks to client-facing workflows; the booking form has 44 recorded scenarios and a 7/7 live release gate.
- Maintain 265 JavaScript test files across the scheduler codebase and review generated emails before they are sent.

  Tools: JavaScript, Google Apps Script, Firebase, HTML, CSS, automated testing

Kanoon Cultural and Educational Institute (Ghalamchi) **Iran**
Network Administrator and IT Support (part-time) May 2023 - Nov 2023

- Maintained the local network and resolved day-to-day connectivity, workstation and software problems.
- Supported staff with minor system faults and kept shared equipment working during teaching operations.

  Tools: Local networks, Windows, software support, troubleshooting

TECHNICAL PROJECTS

GB balancing cost forecasting (MSc project)
Built a reproducible Python pipeline using 131k+ Elexon BMRS and NESO settlement-period rows, with feature engineering, validation and rolling forecast evaluation.
Tools: Python, pandas, scikit-learn

GB energy market data client GitHub
Wrote and tested a Python client for Elexon BMRS, Carbon Intensity and NESO data. It documents the BMRS endpoints that only return live data and raises an error on them instead of returning wrong dates.
Tools: Python, Elexon BMRS API, NESO Data Portal

UK home retrofit analysis GitHub
Built and evaluated Random Forest, XGBoost, SVM and logistic-regression models to identify high-retrofit-potential UK homes from EPC data. Used a temporal holdout and nested cross-validation to test forward-looking generalisation.
Tools: Python, scikit-learn, XGBoost

LEADERSHIP AND ACTIVITIES

MSc Student Representative, University of the West of England, Bristol
Represented cohort feedback and received the Student Representative Gold Award in 2026.

Teacher-selected peer instructor, Azad University
Led two supplementary Python classes covering programming and algorithmic problem-solving, then set an algorithms assessment. Led an Operating Systems revision and problem-solving session to support exam preparation.

SKILLS

Programming: Python, R, SQL, C++ (order book simulator)
Data and ML: pandas, NumPy, scikit-learn, XGBoost, LSTM, Spark, QLoRA fine-tuning (PEFT)
Statistics and forecasting: time-series forecasting, rolling-window evaluation, significance testing (Diebold-Mariano), baseline comparison
Engineering: Git, automated testing, FastAPI, Supabase, Firebase, Google Apps Script, MySQL
AI tools: speech and language models (Whisper, Phi-3, Llama 3.2), AI coding agents with manual review and tests

HONOURS AND AWARDS

- UWE Enterprise Scholarship recipient, 2026, awarded GBP 1,000 for CallFlow.
- MSc Student Representative Gold Award, 2026.

INTERESTS

Self-taught piano, volleyball, table tennis and learning new technical skills.