Arman Borjikhani
armanborjikhani16@gmail.com

Education

B.Sc. Applied Mathematics (Minor: Computer Science)
Amirkabir University of Technology

Coursework: AI, Deep Learning, ML with Graphs, Numerical Linear Algebra, Optimization, Probability, Algorithms, Theory of Computation

---

Research Interests

Artificial Intelligence, Computational Data Mining, NeuroAI, Numerical Linear Algebra in AI, Brain-Inspired Computing

---

Projects

Image Segmentation with ML Models

Implemented segmentation using MLPs, CNNs, and Random Forests.

Evaluated models with Precision, Recall, and F1 metrics.

Graph Algorithms & Planarity Testing

Implemented Hopcroft–Tarjan algorithm and dual graph construction.

Applied shortest-path methods for minimum cut problems.

Numerical Linear Algebra Applications

Developed Thomas algorithm with LU decomposition for tridiagonal systems.

Benchmarked against NumPy for efficiency.

Time Series

Applied time series concepts such as ARIMA & SARIMA with forecasting

---

Skill

Programming: Python, C#, MATLAB, JavaScript, HTML/CSS

AI/ML: Neural Networks, Random Forests, Optimization

Mathematics: Linear Algebra, PDEs, Probability, Combinatorics

Tools: Git/GitHub, Jupyter, NumPy, SciPy, TensorFlow/PyTorch

Achievements & Activities

Completed Neuromatch Academy (128-hour *Computational Neuroscience* program).

Consistently scored >90% in AI, CS.