Pouria Alimoradpour

EDUCATION

M.Sc in Artificial Intelligence & Soft Computing (Amirkabir University of Technology) 2024-2026

Direct entrance by "Research-based" method under the supervision of Dr. Ghatee

GPA: $-/20 \simeq -/4$

B.Sc in Computer Science (Amirkabir University of Technology)

2020-2024

Applied Mathematics entrance and change the academic field to CS after 3 semesters

GPA: $17.13/20 \simeq 3.62/4$

Diploma in Mathematics (Dr. Mosaheb High-school)

2017-2020 GPA: $18.54/20 \simeq 4/4$

RESEARCH INTERESTS:

Computer Science: Computer Vision, Computer Graphics, Image Processing, Robotics, HCI

Artificial Intelligence, Machine Learning, Data-Science, Graphic Design, UI/UX

Other Interests: Music, Art, Sport

Languages:

Persian: Native English: Advance (IELTS 6.5)

SKILLS

Programming: Python, C/C++, HTML/CSS/JS, Git, ROS, Webots, Matlab, GAMS, OpenGL, SQL Server,

Network+, WM-Ware, Linux

Others: ICDL, Microsoft Office, LATEX, Markdown, Adobe Illustrator, Adobe PhotoShop, Adobe XD, Adobe InDesign, Figma, Adobe AfterEffects, Corel VideoStudio, Adobe Premiere

Projects

Deep Learning Projects | Python (GitHub Link)

Winter 2024

- Neural Networks (Topics in CS) | CourseID: 1218393
- 1- MLP, 2- Auto-Encoder, 3- KAN, 4- GANs
- Knowledge: Tensor, Back-propagation, Latent space, Kolmogorov-Arnold Theorem, B-Splines, Generator and Discriminator, etc.

Bot-Ross Robot | Python/C (GitHub Link)

Fall 2023

- Introduction to Robotics | CourseID: 2356193
- A cable-driven parallel robot that has the ability to draw.
- Knowledge: Graph, Image Processing, Robotics, System Control, Electronics

Hyper-parameters Tuning of Deep Unfolding Networks for Image Enhancement

Summer 2023

- Bachelor's Project (Supervisor: Dr. Shakeri) | Python (GitHub Link) | CourseID: 1227510
- Deep Unfolding Networks in different image processing tasks
- Knowledge: Model-based and Variational-based Methods in Image Enhancement, Iterative Optimization

Monopoly + AI Agent | Python (GitHub Link)

Winter 2022

- Artificial Intelligence and Workshop | CourseID: 1319104
- Monopoly game, 2-4 Players with dynamic number of AI-Agents
- Knowledge: ExpectiMiniMax Algorithm, Adversarial Search, Backtracking, ...

Uniland bot | Python (GitHub Link)

Fall 2022

- Software Engineering and Workshop | CourseID: 1380044
- A highly modular and diverse Telegram Bot for universities and institutions.
- Knowledge: Teamwork, UX-Design, API, Inverted Index, Git and Clean Code

Other | More projects (Databases, Image Processing, Data Science, etc.) available on GitHub

Winter 2024 and before

Experience

Graphic Designer | (Full Informations on LinkedIn)

Feb 2021 – Present

- Self-employed: UI/UX, Logo, Poster, Banner, Headers, Story motions, Illustrations, Covers.
- Graphic team leader at CWS
- Motion Graphic Designer at PRS School

Academic Advisor | Dr. Mosaheb High-school

Jun 2021 – Aug 2022

- Supporting students for entrance exam classes
- Designing course contents and consulting catalog

Achievements | Academic Honors & Awards

2009 - 2021

- Top 10 Ranked Students (1st year) (MathCS Faculty)
- Mathematics Silver medal in the MathHome Grand Prize (2019)
- Physics Bronze medal in the MathHome Grand Prize (2019)
- Mathematics Silver medal in IMC2018 Mathematics Olympiad
- Chess championship at the provincial level (2009)

Volunteer Works

Teaching Experience | TA

- Data Mining, Dr. Fatemeh Shakeri, Amirkabir University, Winter 2024
- Foundation of Matrix & Linear Algebra, Dr. Ali Mirsalehi, Islamic Azad University, Fall 2021
- Discrete mathematics and Geometry, Dr. Mosaheb H.S., 2020
- Teach and Review Artificial Intelligence and Numerical Linear Algebra, for the group of course students

Articles Translation and Implementation

- Efficient background subtraction with low-rank and sparse matrix decomposition. (Translated)
- Multi-Level Particle Swarm Optimized Hyper-parameters of Convolutional Neural Network (Implemented)
- Using Artificial Intelligence Techniques in Computer Graphics (Translated)

Presentations

- CapsNet: Capsule Neural Networks, improving CNNs
- UI/UX: online webinar on UI/UX design for the Students' Guild Council (MCS SGC)
- ANN: Approximate Nearest Neighbor method in Data Mining (KNN Improvement)
- Hough Transform: Method to find simple shapes like lines and circles in images
- Slides Preparing: Ten stages in preparing your slides

International Conference Attendance (Event by NORC aut) | Attending in 15 article topics

- DAI-DAY-2024: Data-mining & Artificial Intelligence Day
- ICAISV-2023: International Conference on Artificial Intelligence & Smart Vehicle

References

Dr. Behzad Najafi: Associate Professor at Mathematics and Computer-Science Faculty, AUT Supervising Professor at University (B.Sc)

behzad.najafi@aut.ac.ir

Dr. Mehdi Ghatee: Full Professor at Mathematics and Computer-Science Faculty, AUT Supervising Professor at University (M.Sc)

ghatee@aut.ac.ir

Dr. Fatemeh Shakeri: Assistant Professor at Mathematics and Computer-Science Faculty, AUT Bachelor's Project Supervisor

f. shakeri@aut.ac.ir

Dr. Ali Mirsalehi: Teaching Professor at Management Faculty, Islamic Azad University Supervising Professor at High-School

a.mirsalehi@iau-tnb.ac.ir