Sepehr Kazemi Ranjbar

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Education

2020–2025 **Sharif University of Technology**, B.Sc. in Electrical Engineering
GPA: 18.04/20 (3.85/4.00)

2016–2020 **Allameh Tabatabaei High School**, Diploma in Physics and Mathematics
GPA: 19.83/20

Work Experience

- **AI Team-Lead, Nassiri General Trading - UAE (2025–present)** — Leading a team developing an *AI-powered day trading agent*.
- **Founding Engineer, EmoDub - Dublin (2025–present)** — Research and develop natural emotion-aware dubbing system, integrating audio + vision + text modalities.

Research Interests

- Reasoning in Foundation Models
- Explainability & Fairness in Foundation Models
- Multimodal Learning
- Reinforcement Learning

Publications

- **Sepehr Kazemi Ranjbar** , Kumail Alhamoud, Marzyeh Ghassemi. SpaceVLM: Sub-Space Modeling of Negation in Vision-Language Models. *under-review, CVPR 2026.*
- **Sepehr Kazemi Ranjbar***, Ali Rasekh*, Simon Gottschalk. Multi-Rationale Explainable Object Recognition via Contrastive Conditional Inference. *BMVC 2025.*
- Amirabbas Afzali*, Borna Khodabandeh*, Ali Rasekh, Mahyar JafariNodeh, **Sepehr Kazemi Ranjbar**, Simon Gottschalk. Aligning Visual Contrastive Learning Models via Preference Optimization. *ICLR 2025.*
- Ali Mamaghani et al., including **Sepehr Kazemi Ranjbar**. LLMs for 5G Network Management. *ICLMCN 2024.*
- **Sepehr Kazemi Ranjbar**, Emad Fatemizadeh. ExIQA: Explainable Image Quality Assessment Using Distortion Attributes. *arXiv.*
- **Sepehr Kazemi Ranjbar***, Ali Rasekh*, Milad Heidari, Wolfgang Nejdl. ECOR: Explainable CLIP for Object Recognition. *arXiv.*

Research Experience

- **Massachusetts Institute of Technology – Independent Researcher (2025–present)** — Research on Negation Understanding of Vision-Language Models under supervision of **Prof. Marzyeh Ghassemi**. one work submitted to CVPR 2026.
- **L3S Laboratory, Leibniz University – Research Assistant (2023–2025)** — Research on conditional understanding, explainability, and alignment of vision-language models under supervision of **Prof. Wolfgang Nejdl** and **Dr. Simon Gottschalk**; three publication.
- **Sharif University of Technology (2023–2025)** — Applied vision-language models to image quality assessment; one publication.

- **5G Lab, Sharif University & Eurecom Research Center (2023–2024)** — Utilized LLMs for 5G network management under supervision of **Prof. Babak Khalaj**; one publication.

Selected Courses

- Deep Generative Models (19/20) (Project: Tree-of-Thoughts (ToT) in Large language Models).
- Reinforcement Learning (19/20) (Project: Language-based RL survey).
- Game Theory (18/20) (Project: Resource allocation with stable matching).
- Deep Learning (17.1/20) (Project: GAN-BERT for semi-supervised text classification).
- Image Processing (20/20) (Project: SR-GCN for image super-resolution).
- Introduction to Robotic Systems (18/20) (Project: Simulation of a manipulator and a mobile robot)
- Signal and System (20/20) (Project: Song Detection based on Fourier Transform)
- Convex Optimization (17.2/20)
- Object Oriented Programming (20/20) (Project: Building Farm Frenzy 3 with JAVA)

Teaching Assistance

- Digital Image Processing (2024)
- Machine Learning (2023)
- Communication Systems (2023)
- Circuit Theory (2023)
- Engineering Mathematics (2022)
- Electrical Circuits and Lab (2022)

Honors and Awards

2019	Silver Medal, 32nd National Physics Olympiad, Iran
2020–2025	Ranked top 15% of class by GPA

Languages

English:	Fluent (TOEFL iBT 97; R:25, L:21, S:26, W:25)
Persian:	Native

Skills

Programming:	Python, C/C++, MATLAB, Java, Assembly
Software:	PSpice, Proteus, MPLAB, Linux (Ubuntu, Kali), COMSOL, LaTeX

References

- Prof. Marzyeh Ghassemi (MIT EECS)
- Dr. Simon Gottschalk (L3S Laboratory)