






# SEYED AMIR KASAEI

Research Assistant, RIML Lab & MSc Student, Software Engineering, Sharif University of Technology

 Google Scholar  
 amirkasaei  
 a.kasaei@me.com  
 amirkasaei.com  
 amirkasaei

## EDUCATION

- **M.Sc. in Software Engineering** (Sep 2023 – Present)  
Sharif University of Technology  
GPA: 18.54/20 (4.0/4.0)  
Focus: Computer Vision, Compositional Generation
- **B.Sc. in Computer Engineering** (Sep 2019 – Aug 2023)  
University of Guilan  
GPA: 19.58/20 (3.98/4.0)  
Ranked 1st

## RESEARCH INTERESTS

- Compositional and Multimodal Learning across Vision and Language
- Text-to-Image Generation and Diffusion Models
- Visual Reasoning and Semantic Alignment in Cross-Modal Systems

## PUBLICATIONS

- **CARINOX: Inference-time Scaling with Category-Aware Reward-based Initial Noise Optimization and Exploration**  
Seyed Amir Kasaei, Ali Aghayari, Arash Marioriyad, Niki Sepasian, Shayan Baghayi Nejad, MohammadAmin Fazli, Mahdieh Soleymani Baghshah, Mohammad Hossein Rohban  
Under Review at TMLR  
[arxiv.org/abs/2509.17458](https://arxiv.org/abs/2509.17458)
- **Evaluating the Evaluators: Metrics for Compositional Text-to-Image Generation**  
Seyed Amir Kasaei, Ali Aghayari, Arash Marioriyad, Niki Sepasian, MohammadAmin Fazli, Mahdieh Soleymani Baghshah, Mohammad Hossein Rohban  
NeurIPS 2025 Workshop GenProCC  
[arxiv.org/abs/2509.21227](https://arxiv.org/abs/2509.21227)
- **Hallucination as an Upper Bound: A New Perspective on Text-to-Image Evaluation**  
Seyed Amir Kasaei, Mohammad Hossein Rohban  
NeurIPS 2025 Workshop GenProCC  
[arxiv.org/abs/2509.21257](https://arxiv.org/abs/2509.21257)

## HONORS & AWARDS

- **Exceptional Talent Admission**, Sharif University of Technology Sep 2023  
Awarded direct admission to M.Sc. in Software Engineering as an exceptional talented student.
- **Ranked 1st**, B.Sc. Computer Engineering, University of Guilan 2019 – 2023  
Highest GPA among all undergraduate Computer Engineering students.

## EXPERIENCE

### Research Assistantships

- *RIML Lab, Sharif University of Technology* Sep 2023 – Present  
Supervisor: [Dr. Mohammad Hossein Rohban](#)  
Focus: Compositional Generation and Multimodal Learning
- *University of Guilan* Sep 2022 – Aug 2023  
Supervisor: [Dr. Seyed Abolghasem Mirroshandel](#)  
Focus: Medical Image Analysis

## Teaching Assistantships

- *Data Mining*, Sharif University of Technology Sep 2025 – Jan 2026  
Instructor: [Dr. Mohammad Amin Fazli](#)  
Assisted with assignments and projects
- *System 2 in AI*, Sharif University of Technology Feb 2025 – Jun 2025  
Instructors: [Dr. Mohammad Hossein Rohban](#), [Dr. Mahdieh Soleymani Baghshah](#)  
Assisted with course material preparation and quiz grading  
Focus areas: Compositional Generation
- *Deep Learning*, Sharif University of Technology Feb 2025 – Jun 2025  
Instructor: [Dr. Mahdieh Soleymani Baghshah](#)  
Contributed to quiz and exam design, and grading  
Focus areas: Generative Models
- *Intelligent Analysis of Biomedical Images*, Sharif University of Technology Sep 2024 – Jan 2025  
Instructor: [Dr. Mohammad Hossein Rohban](#)  
Supported exercises, exam and quiz design, and grading  
Focus areas: Diffusion and Generative Models

## LICENSES & CERTIFICATIONS

---

- **IELTS - Certificate**  
IDP - Sep 2023  
Overall: 6.5  
Listening: 7, Reading: 6.5, Writing: 6, Speaking: 6

## SKILLS

---

- **Machine Learning & Deep Learning:** Design and implementation of neural architectures using PyTorch, TensorFlow, and Keras; optimization techniques for training and evaluation
- **Computer Vision & Generative Models:** Expertise in diffusion models, text-to-image and image-to-text generation, multimodal learning
- **Natural Language Processing:** Representation learning, BERT-based models, text classification
- **Data Analysis & Visualization:** Proficient in statistical analysis and experimental evaluation with Python, NumPy, Pandas, Matplotlib, Seaborn, and Weights & Biases
- **Programming & Development:** Strong Python background; additional experience with Java, and basic web development
- **Collaboration & Tools:** GitHub, Slack, Discord for version control and research collaboration

## REFERENCES

---

- |   |  |
|---|--|
| <b>Dr. Mohammad Hossein Rohban</b><br><a href="mailto:rohban@sharif.edu">rohban@sharif.edu</a><br>Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran          | <i>Sharif University of Technology</i><br><a href="#">Google Scholar</a> |
| <b>Dr. Mohammad Amin Fazli</b><br><a href="mailto:fazli@sharif.edu">fazli@sharif.edu</a><br>Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran                | <i>Sharif University of Technology</i><br><a href="#">Google Scholar</a> |
| <b>Dr. Mahdieh Soleymani Baghshah</b><br><a href="mailto:soleymani@sharif.edu">soleymani@sharif.edu</a><br>Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran | <i>Sharif University of Technology</i><br><a href="#">Google Scholar</a> |