






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**
Sharif University of Technology - (Sep 2023 – Present)
Focus: *Compositional Generation in T2I Diffusion Models*
Supervisor: [Dr. M H Rohban](#)
GPA: 18.54/20
- **B.Sc. in Computer Engineering**
University of Guilan (Sep 2019 – Aug 2023)
Focus: *Medical Image Analysis*
Supervisor: [Dr. S A Mirroshandel](#)
GPA: 19.58/20 - Ranked 1st

RESEARCH INTERESTS

- Computer Vision, 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
- **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
- **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

EXPERIENCE

Research Assistantships

- *RIML Lab, Sharif University of Technology* Sep 2023 – Present
Supervisor: [Dr. Mohammad Hossein Rohban](#)
Focus: Compositional Generation, T2I Diffusion Models, Visual Reasoning, Multimodal Models
- *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
Head Teaching Assistant — Instructor: [Dr. Mohammad Amin Fazli](#)
Led course coordination, quiz design, and grading; assisted with lectures, assignments, and student support
- *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

NOTABLE SELECTED COURSES

Master of Science

- Data Science in Software Engineering - 19 / 20
- Intelligent Analysis of Biomedical Images - 20 / 20
- Deep Learning - 16.7 / 20
- Algorithmic Game Theory - 19.5 / 20
- Massive Data Algorithms - 19.5 / 20
- Randomized Algorithms - 16.5 / 20

Bachelor of Science

- Fundamental of Data Mining - 20 / 20
- Introduction to Deep Learning - 19.8 / 20
- Introduction to Machine Learning - 18.16 / 20
- Fundamental of Language and Speech Processing - 20 / 20
- Artificial Intelligence and Expert Systems - 20 / 20

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.

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

LICENSES & CERTIFICATIONS

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

REFERENCES

Dr. Mohammad Hossein Rohban

rohban@sharif.edu

Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran

Sharif University of Technology

[Google Scholar](#)

Dr. Mohammad Amin Fazli

fazli@sharif.edu

Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran

Sharif University of Technology

[Google Scholar](#)

Dr. Mahdieh Soleymani Baghshah

soleymani@sharif.edu

Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran

Sharif University of Technology

[Google Scholar](#)