SEYED AMIR KASAEI

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

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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

- **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

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
  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

- *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

Dr. Mohammad Hossein Rohban   *Sharif University of Technology*
rohban@sharif.edu   *Google Scholar*
Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran

Dr. Mohammad Amin Fazli   *Sharif University of Technology*
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Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran

Dr. Mahdieh Soleymani Baghshah   *Sharif University of Technology*
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Associate Professor of Computer Engineering, Sharif University of Technology, Tehran, Iran