

Sadra Safadoust

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EDUCATION

- **Koç University, Istanbul, Turkey.** Sep 2022 – Present
Ph.D. in Computer Science and Engineering. GPA: 4.00/4.00, Advisor: Dr. Fatma Guney
- **Koç University, Istanbul, Turkey.** Jan 2020 – Sep 2022
M.Sc. in Computer Science and Engineering. GPA: 3.95/4.00, Advisor: Dr. Fatma Guney
- **Sharif University of Technology, Tehran, Iran.** Sep 2014 – July 2019
B.Sc. in Software Engineering. GPA: 18.62/20

RESEARCH INTERESTS

- 3D Computer Vision, Monocular Depth Estimation, Unsupervised Scene Understanding.

PUBLICATIONS

- S. Safadoust, F. Guney, “**Multi-object discovery by low-dimensional object motion**”, under review, 2023.
- S. Safadoust, F. Guney, “**DepthP+P: metric accurate monocular depth estimation using planar and parallax**”, under review, 2022.
- A. K. Akan, S. Safadoust, F. Guney, “**Stochastic video prediction with structure and motion**”, arXiv preprint, arXiv:2203.10528, 2022.
- S. Safadoust, F. Guney, “**Self-supervised monocular scene decomposition and depth estimation**”, in International Conference on 3D Vision (3DV), 2021.
- V. Popescu, J. Sanchez-Martin, D. Schacherer, S. Safadoust, N. Majidi, A. Andronesco, A. Nedeia, D. Ion, E. Mititelu, E. Czeizler, and I. Petre, “**NetControl4BioMed: a web-based platform for controllability analysis of protein–protein interaction networks**”, Bioinformatics, 2021.

RESEARCH EXPERIENCE

- **KUIS AI Lab, Koç University, Turkey.** Jan 2020 – Present
 - Research Assistant. Advisor: Dr. Fatma Guney
 - Master’s Thesis: Addressing the Static Scene Assumption and the Scale Ambiguity in Self-Supervised Monocular Depth Estimation.
- **Image Processing Lab, Sharif University of Technology, Iran.** Jan 2019 – July 2019
 - Undergraduate Researcher. Supervisor: Prof. Shohreh Kasaei.
 - Bachelor’s thesis: Semi-supervised Semantic Segmentation of Rgb-D Images Using Generative Adversarial Networks (GANs).
- **Computational Biomodeling Lab, University of Turku, Finland.** Jul 2018 – Sep 2018
 - Research Intern. Supervisor: Prof. Ion Petre.
 - Worked on implementing a bioinformatics data analysis software that performs an automatic generation of intracellular molecular interaction networks and identification of driven nodes for a set of target genes/proteins defined by the user.

WORK EXPERIENCE

- **Software Engineer at Asr-Gooyesh-Pardaz Co.** Feb 2019 – Jun 2019
 - Developed a website for natural language processing where the goal is to evaluate sentences based on the naturalness, quality, and informativeness criteria using crowdsourcing.

HONORS AND AWARDS

- **Best Poster Award** for *NetControl4BioMed* web application in the annual symposium of BioCity's research program on Computational and Molecular Methodologies for Life Sciences. 2018
- **Ranked 7th out of 144** students in Sharif University Computer Engineering Department. 2018
- **3rd place out of 220,000** competitors in the national university entrance exam. 2014
- Recipient of the grant for undergraduate studies from the Iranian National Elites Foundation. Since 2014
- Member of Iranian National Elites Foundation. Since 2014
- Member of National Organization for Development of Exceptional Talents. 2007 – 2014

TEACHING EXPERIENCE

- **Teaching Assistance at Koç University**
 - Computer Vision For Autonomous Driving
 - Algorithms & Complexity
 - Introduction to Computer Science and Programming
- **Teaching Assistance at Sharif University of Technology**
 - Probability and Statistics
 - Numerical Methods

SKILLS

- **Programming Languages:**
Python, C/C++, Java, MATLAB, R., Julia, C#.
- **Other:**
PyTorch, TensorFlow, Keras, Blender, L^AT_EX, PostgreSQL, Linux, Git.
- **Languages:**
Fluent in English and Turkish. Native Persian and Azeri speaker.