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 Güney

- **Koç University, Istanbul, Turkey.**   Jan 2020 – Sep 2022
  M.Sc. in Computer Science and Engineering. GPA: 3.95/4.00, Advisor: Dr. Fatma Güney

- **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

- <u>S. Safadoust</u>, F. Güney, "**Multi-object discovery by low-dimensional object motion**", in International Conference on Computer Vision (ICCV), 2023.

- <u>S. Safadoust</u>, F. Güney, "**DepthP+P: metric accurate monocular depth estimation using planar and parallax**", under review, 2022.

- A. K. Akan, <u>S. Safadoust</u>, F. Güney, "**Stochastic video prediction with structure and motion**", arXiv preprint, arXiv:2203.10528, 2022.

- <u>S. Safadoust</u>, F. Güney, "**Self-supervised monocular scene decomposition and depth estimation**", in International Conference on 3D Vision (3DV), 2021.

- V. Popescu, J. Sanchez-Martin, D. Schacherer, <u>S. Safadoust</u>, N. Majidi, A. Andronescu, A. Nedea, 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

- **CVLab, University of Bologna.**   July 2023 – Sep 2023
  - Visiting PhD Student. Supervisors: Dr. Matteo Poggi, Dr. Fabio Tosi.
  - 3D reconstruction of dynamic scenes.

- **KUIS AI Lab, Koç University, Turkey.**   Jan 2020 – Present
  - Research Assistant. Advisor: Dr. Fatma Güney.
  - 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 2018 of BioCity's research program on Computational and Molecular Methodologies for Life Sciences.
- **Ranked 7$^{\text{th}}$ out of 144** students in Sharif University Computer Engineering Department. 2018
- **3$^{\text{rd}}$ place out of 220,000** competitors in the national university entrance exam. 2014

- Recipient of the grant for undergraduate studies from the Since 2014 Iranian National Elites Foundation.
- 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, LaTeX, PostgreSQL, Linux, Git.
- **Languages:**
  Fluent in English and Turkish. Native Persian and Azeri speaker.