

Amin Parchami-Araghi

✉ E-Mail: mparcham@mpi-inf.mpg.de

🏠 Webpage: m-parchami.github.io

🐙 GitHub: github.com/m-parchami

🌐 LinkedIn: linkedin.com/in/amin-parchami

🎓 G-Scholar: Amin Parchami-Araghi

📍 Address: Saarbrücken, Germany

🇮🇷 Nationality: Iranian

🎂 Birthyear: 1999

Education

Aug 2024 – Now PhD Student at **Max Planck Institute for Informatics, D2 Group**, under supervision of Prof. Dr. [Bernt Schiele](#) working on neuro-explicit and inherently interpretable models.

Oct 2021 – Jul 2024 MSc. Visual Computing, Saarland University, Germany | **GPA: 1.2/1.0**

Thesis: A Good Teacher Explains: Explanation-enhanced Knowledge Distillation | **Grade:** 1.0/1.0

Supervisor: Prof. Dr. Bernt Schiele **Reviewer:** Dr. Jan Eric Lenssen **Advisors:** Dr. Moritz Böhle & Sukrut Rao

Selected Courses: High-Level Computer Vision (1.0), Machine Learning (1.0), Image Acquisition Methods (1.3), CV&ML for Graphics (1.3), Realistic Image Synthesis (1.3) Advanced Image Analysis (1.7), Computer Graphics (1.7)

Sep 2017 – Jul 2021 BSc. Computer Engineering, K. N. Toosi University of Technology, Iran | **GPA:** 18.7/20, Ranked 5th in class of 75

Thesis: Monocular 3D Vehicle Detection **Supervisor:** Dr. Behrooz Nasihatkon | **Grade:** 20/20

Fields of Interests

- Neuro-explicit (hybrid) methods for having, e.g. explicit 3D representation or desirable model-inherent properties such as inherent-interpretability or -robustness
- Analyzing the representation space learned by large Vision-Language or self-supervised models

Research Experience

Apr 2022–Jul 2024 Research Assistant (HiWi), **Max Planck Institute for Informatics D2 Group**, Germany
Under supervision of Dr. [Moritz Böhle](#) and [Sukrut Rao](#) (Prof. Dr. [Bernt Schiele](#)'s group)

Publications

Model Guidance via Attributions

[ECCV 2024] **Good Teachers Explain: Explanation-Enhanced Knowledge Distillation**

[Amin Parchami-Araghi](#)^{*}, [Moritz Böhle](#)^{*}, [Sukrut Rao](#)^{*}, [Bernt Schiele](#)

[ICCV 2023] **Studying How to Efficiently and Effectively Guide Models with Explanations**

[Sukrut Rao](#)^{*}, [Moritz Böhle](#)^{*}, [Amin Parchami-Araghi](#), [Bernt Schiele](#)

Industrial Experience

Feb 2021–Oct 2021 Computer Vision Engineer at **Sensifai**, Belgium, (remote)

My primary focus was on optimizing video processing pipelines on Jetson. For instance, applying certain transformations in a zero-copy manner through a custom DeepStream plugin in C++.

Nov 2019–Sep 2020 Computer Vision Intern at **Rahbin Sanat Nasir**, Iran

Mostly worked on the Forward Collision Warning module of our low-cost ADAS solution. My primary focus was on enhancing object detection and tracking accuracy and lowering inference time.

Community Outreach and Awards

Conference Reviewer ICLR 2025

Workshop Reviewer XAI4CV CVPR 2024, eXCV ECCV 2024

Sep 2018–Jul 2019 Dean's List, second year of Bachelor's study at K. N. Toosi University

Languages

Farsi (Native), English (Professional Proficiency, C1), German (Beginner, B1.2)

Jan 2020 **TOEFL iBT:106** Reading: 29 | Listening: 28 | Speaking: 25 | Writing: 24

Teaching Experience

At Saarland University, Germany

Summer 23 & 24 Tutor & Teaching Assistant, **High-Level Computer Vision**, Instructor: Prof. Dr. Bernt Schiele
 Winter 2022 Tutor, **Computer Graphics**, Instructor: Prof. Dr.-Ing. Philipp Slusallek.

At K. N. Toosi University of Technology, Iran

Spring 2021 Head Teaching Assistant, **Fundamentals of Computer Vision**, Instructor: Dr. Behrooz Nasihatkon
 Fall 2020 Teaching Assistant, **System Analysis and Design**, Instructor: Dr. Mehdi Esnaashari
 Fall 2019 Head Teaching Assistant, **Fundamentals of Programming**, Instructor: Dr. Behrooz Nasihatkon
 Fall 2019 Head Teaching Assistant, **Assembly and Machine Language**, Instructor: Dr. Behrooz Nasihatkon
 Spring 2019 Teaching Assistant, **Assembly and Machine Language**, Instructor: Dr. Behrooz Nasihatkon
 Spring 2019 Teaching Assistant, **Advanced Programming with Java**, Instructor: Dr. Mehdi Esnaashari
 Fall 2018 Teaching Assistant, **Fundamentals of Programming**, Instructor: Dr. Behrooz Nasihatkon

Others

Summer 2019 Course Instructor, **Programming with Java**, Alzahra University, Tehran, Duration: 30 Hours.

Technical Skills

Languages Python, C++, Java 8, x86 Assembly
 Libs. and Frameworks OpenCV, PyTorch and PyTorch-Lightning, Numpy, Tensorflow 1.x & Keras, Scikit-learn, Matplotlib, Seaborn, Gstreamer, Nvidia DeepStream, Nvidia VPI
 Programming Object Oriented and Functional Programming, OOP Design Patterns
 Essentials Docker, Git, Job Schedulers (e.g. Slurm and Condor) plus APIs such as *submitit*, WandB and Tensorboard, Agile Project Management with Scrum, Jira, Confluence, Tmux, a little CMake and bash scripting
 Linux Distros Ubuntu, Debian
 Familiar Boards Jetson Xavier, Raspberry Pi 4
 IDEs and Editors PyCharm, IntelliJ IDEA, GNU Emacs

Selected Projects

Relevant coursework projects

Aug 2022 Incorporating Diffusion Models (DDPM) in a CycleGAN framework | High-Level Computer Vision, MSc
 Jul 2022 CompressedSGD: a gradient discretization method (based on SignSGD) | Optimization for ML, MSc
 Feb 2022 Rendering an original scene with our own ray tracing engine | Computer Graphics, MSc
 Jul 2020 Persian form reader | Fundamentals of Computer Vision, BSc
 Jan 2019 Image blending using x86 Assembly | Assembly and Machine Language, BSc
 Jun 2021 2D Soccer Map: generating 2D bird-eye's view of the players | Designed by me for the CV course at KNTU, BSc

Hobby projects

Mar 2020 Magic Webcam | A virtual webcam for streaming processed images to any other application

Certificates

Verified certificates from Coursera

Nov 2019 Structuring Machine Learning Projects | [deeplearning.ai](https://www.coursera.org/learn/structuring-machine-learning-projects)
 Oct 2019 Hyperparameter tuning, Regularization, and Optimization | [deeplearning.ai](https://www.coursera.org/learn/hyperparameter-tuning-regularization-and-optimization)
 Sep 2019 Neural Networks and Deep Learning | [deeplearning.ai](https://www.coursera.org/learn/neural-networks-and-deep-learning)

Other

Sep, Jul 2019 Fundamentals of Deep Learning, Advanced Deep Learning | both from KNTU ACM Student Chapter
 Oct 2018 Javacup Certified Java Programmer | Javacup Association

Hobbies

Playing and Listening to Piano, Basketball, Recently Ultimate Frisbee and (beach) Volleyball, Nerdy videos (e.g. Vsauce!), Hiking