

Mihai Fieraru | Curriculum Vitae

Research Scientist – Bucharest, Romania

📞 (+40) 729 801 345 • ✉ fierarufmihai@gmail.com
📁 mihaifieraru.github.io • 🇷🇴 Citizenship: Romanian (EU)

Summary

I am an AI Research Scientist at Google. My Computer Vision expertise spans across both academia and industry, including research, large-scale data acquisition and managing data annotation teams.

Work Experience

Google

Bucharest, Romania

Research Scientist

Oct 2021 – present

Part the Perception Team in Google Research. Proposing methodology and implementing algorithms for photorealistic human synthesis, 3d human reconstruction, motion generation and retargeting. Working closely with the data collection and annotation team. Hired via Adecco Romania as a contractor.

Institute of Mathematics of the Romanian Academy

Bucharest, Romania

Research Assistant - Computer Vision

Aug 2018 – Oct 2021

Pursuing research on visual perception of humans in images and video scenes. Proposing algorithms for reconstructing people in 3d. The methods were published in top conferences: CVPR'20, CVPR'21, AAAI'21, NeurIPS'21. Managing the annotation team and the data collection required to build these algorithms: I led the capturing of 3 mocap datasets and 2 image datasets and publicly released them at `ci3d.imar.ro`, `fit3d.imar.ro`, `sc3d.imar.ro`, with supporting code for data processing and evaluation.

Max Planck Institute for Informatics

Saarbrücken, Germany

Student Research Assistant - Computer Vision

Jan 2017 – Apr 2018

During my MSc thesis in the Computer Vision group, I worked on semi-supervised tracking of humans in unconstrained videos. After my thesis, I proposed an algorithm to refine human pose estimation predictions.

Max Planck Institute for Informatics

Saarbrücken, Germany

Student Research Assistant - Machine Learning

Sept – Nov 2016

As part of the Statistical Learning in Computational Biology group, I worked on the optimization of the dimensionality reduction with multiple kernel learning, with applications in cancer subtype discovery. Advisor: Prof. Dr. Nico Pfeifer

DFKI

Kaiserslautern, Germany

Student Research Assistant

June 2015 – May 2016

As part of the Multimedia Analysis and Data Mining Group, I did research on image sentiment analysis with fine-tuning convnets. I also exposed the trained algorithms as web services for demo and production purposes. Supervisor: Dr. Damian Borth

Microsoft

Prague, Czech Republic

Software Developer Engineer in Test - Intern

June – Aug 2014

Working in the Skype Division, Identity Team. Performance testing RESTful APIs to evaluate their horizontal scalability. Participating in design and test reviews. Developing automated functional tests and improving the frameworks supporting their execution.

Education

Institute of Mathematics of the Romanian Academy

Bucharest, Romania

PhD Student - Computational Learning and Visual Perception Group

Nov 2018 - present

Advisor: Prof. Dr. Cristian Sminchisescu

Saarland University

Saarbrücken, Germany

M.Sc. Computer Science

Oct 2015 – Dec 2017

Masters student at the International Max Planck Research School for Computer Science
Main Focus: Computer Vision and Machine Learning
Thesis: Learning to Track Humans in Videos
Advisor: Prof. Dr. Bernt Schiele

Carnegie Mellon University

Pittsburgh, USA

Exchange Student

Aug – Dec 2014

One of two students at Jacobs Univ. selected to pursue an exchange semester in the School of Computer Science at Carnegie Mellon University. Courses: Machine Learning, Machine Learning for Text Analysis, Cloud Computing, Entrepreneurship for CS

Jacobs University Bremen

Bremen, Germany

B.Sc. Computer Science

Sept 2012 – June 2015

Thesis: Using Theory Graphs to Infer Concept Mastery in an Intelligent Tutoring System

Summer Schools

PRAIRIE AI Summer School (PAISS) 2018 (Grenoble, FR)

Transylvanian ML Summer School (TMLSS) 2018 (Cluj-Napoca, RO)

Publications

Mihai Fieraru, Mihai Zanfir, Teodor Alexandru Szente, Eduard Gabriel Bazavan, Vlad Olaru, Cristian Sminchisescu. *REMIPS: Physically Consistent 3D Reconstruction of Multiple Interacting People under Weak Supervision*. Advances in Neural Information Processing Systems 2021 (NeurIPS'21).

Mihai Fieraru, Mihai Zanfir, Silviu-Cristian Pirlea, Vlad Olaru, Cristian Sminchisescu. *AIFit: Automatic 3D Human-Interpretable Feedback Models for Fitness Training*. 2021 IEEE Conf. on Computer Vision and Pattern Recognition (CVPR'21).

Mihai Fieraru, Mihai Zanfir, Elisabeta Oneata, Alin-Ionut Popa, Vlad Olaru, Cristian Sminchisescu. *Learning Complex 3D Human Self-Contact*. Thirty-Fifth AAAI Conf. on Artificial Intelligence (AAAI'21).

Mihai Fieraru, Mihai Zanfir, Elisabeta Oneata, Alin-Ionut Popa, Vlad Olaru, Cristian Sminchisescu. *Three-Dimensional Reconstruction of Human Interactions*. 2020 IEEE Conf. on Computer Vision and Pattern Recognition (CVPR'20).

Mihai Fieraru, Anna Khoreva, Leonid Pischulin, Bernt Schiele. *Learning to Refine Human Pose Estimation*. 2018 IEEE Conf. on Computer Vision and Pattern Recognition Workshops (CVPRW'18).

Awards

2015-2017: Scholarship and membership at the Intl. Max Planck Research School for Computer Science

2014: Study Abroad Scholarship offered by Jacobs Univ. in order to study at Carnegie Mellon University

2013: President's List distinction for academic excellence, Jacobs University Bremen

2009: Bronze Medal, National Mathematics Olympiad, Romania

Technical skills

Programming Languages.....

- o Good Level - Python, Matlab
- o Basic Level - C++, PHP

Others.....

- o Frameworks - TensorFlow, PyTorch, Open CV, Drupal

Communication Skills

English (fluent), **Romanian** (Mother Tongue), **French** (Intermediate), **German** (Intermediate)