Vienna. Austria

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Andreas Kriegler

• Vienna, Austria andreaskriegler.eu **☎** Google Scholar **1** 0000-0002-5653-5181 **2** akriegler **2** Andreas-Kriegler

Summary ____

PhD student in Computer Vision at TU Wien, set to finish in late 2026.

I am a PhD student in Computer Vision at the CVL at TU Wien. My supervisor is Prof. Margrit Gelautz. My research is funded by the AIT Austrian Institute of Technology where I am further advised by Csaba Beleznai.

My research lies in the intersection of classical Computer Vision, Deep Learning and Computer Graphics. The goal is to develop novel methods for highly generic object pose estimation. We are specifically interested in the geometry of objects and exploit rendering engines to generate synthetic data.

Before joining the PhD program, I received my M.Sc. and B.Sc. degrees in Mechatronics/Robotics from the UAS Technikum Wien, both with distinction.

Education $_$

TU Wien Vienna, Austria Dr. techn. (PhD) in Computer Science Mar 2021 - present

• Advisor: Prof. Margrit Gelautz (CVL, Faculty of Informatics, TU Wien)

University of Applied Sciences Technikum Wien

M.Sc. (with distinction) in Mechatronics/Robotics Sept 2018 - Oct 2020

University of Applied Sciences Technikum Wien

Vienna, Austria B.Sc. (with distinction) in Mechatronics/Robotics Sept 2015 - June 2018

University of Natural Resources and Life Sciences Vienna

B.Sc. in Civil Engineering (discontinued) Oct 2014 - June 2015

Experience _____

PhD Student Vienna, Austria

AIT Austrian Institute of Technology

Mar 2021 - present

Besides the dissertation, I am involved in projects on the automation of large-scale machinery.

Univ. Research Assistant (external)

Vienna, Austria TU WIEN Mar 2021 - present

We are working on a robotic imitation system and corresponding publications for the caring robots project. I am regularly teaching guest lectures and am reviewing external papers as well as internal diploma theses.

Computer Vision Engineer Vienna. Austria

AIT Austrian Institute of Technology Nov 2020 - Mar 2021

Diploma Student

AIT Austrian Institute of Technology Sept 2018 - Oct 2020

Application and Control Engineering Intern Düsseldorf, Germany

SMS Group Aug 2017 - Jan 2018

Call Center Agent Vienna, Austria

Customer Care Solutions Feb 2016 - Dec 2016

Paramedic Vienna, Austria

Vienna Red Cross Dec 2013 - Apr 2014

Academic Work _____

I Can't Believe It's Not Better Initiative

Worldwide2022 - present

I joined the ICBINB initiative after the NeurIPS 2022 workshop. Our aim is to foster a community beyond benchmark climbing, specifically to provide a venue for negative results as well as introspective works. I helped organize the 2023 NeurIPS and 2025 ICLR workshops with them. Together with Prof. Neil Lawrence we publish outstanding works in the Proceedings of Machine Learning Research series.

Teaching (TU Wien, guest lectures)

- Stereo Vision (188.513): 2021S, 2024S
- Video Analysis (188.329): 2021W, 2022W, 2023W
- Visual Analysis of Human Motion (188.468): 2022S, 2023S, 2025S

Reviewing

- Journals: IJCV, IJSR, IJCSS
- Conferences: ICML, SIGGRAPH, DAGM, CVWW, ISPA, ÖAGM

Editor

• NeurIPS/ICLR ICBINB workshop proceedings: PMLR

Summer Schools _

International Computer Vision Summer School (ICVSS)

Sicily, Italy July 2024

July 2019

Attended the summer school and passed the examination session (1h)

Lincoln. United Kingdom

British Machine Vision Association Computer Vision Summer School Participated in 32 contact hours with exercises at the University of Lincoln

\mathbf{Awards} _____

- Graduated with distinction from the Master's degree (2020) at UAS Technikum Wien
- Graduated with distinction from the Bachelor's degree (2018) at UAS Technikum Wien
- My 2nd Bachelor thesis was nominated as the "Best Bachelor Thesis in Mechatronics in Austria (2018)"

Scholarships ____

- Received two scholarships from the UAS Technikum Wien for exceptional academic success (17/18, 19/20)
- Received a scholarship from the Karl-Seitz-Stiftung, reserved for students with exceptional academic success and difficult family background (2017)

Certificates _____

- TOEFL iBT English Language Certificate with grade "C2 (116/120)" (2022)
- Intercultural Skills Certificate from The International Office of the UAS Technikum Wien (2018)
- IAESTE English Language Certificate with grade "1 excellent" from Berlitz language school (2016)
- Dassault Systemes Mechanical Design (Associate) certification (2016)
- Japanese language courses with certifications of attendance (7.5 ECTS in total, 2015-2017)

Languages ____

- German (native)
- English (C2)
- Japanese (basic)

- Latin (basic)
- Polish (basic)

References _

- Margrit Gelautz, TU Wien, margrit.gelautz@tuwien.ac.at
- Wilfried Wöber, FH Technikum Wien, wilfried.woeber@technikum-wien.at
- Jörg Thomasberger, SMS Group, joerg.thomasberger@sms-group.com

Publications —

Review Paper: Body Movement Mirroring and Synchrony in Human-**Robot Interaction**

Oct 2024

D. Stoeva, $\boldsymbol{A.}$ Kriegler, M. Gelautz

10.1145/3682074 (ACM Transactions on Human-Robot Interaction (THRI))

PrimitivePose: Generic Model and Representation for 3D Bounding Box Prediction of Unseen Objects

Aug 2023

A. Kriegler, C. Beleznai, M. Gelautz, M. Murschitz, K. Göbel

10.1142/S1793351X23620027 (International Journal of Semantic Computing (IJSC))

Towards Scene Understanding for Autonomous Operations on Airport **Aprons**

Mar 2023

D. Steininger, A. Kriegler, W. Pointner, V. Widhalm, J. Simon, O. Zendel

10.1007/978-3-031-27066-6 11 (16th Asia Conference on Computer Vision (ACCV 2022) - The Fourth International Workshop on Machine Learning and Computing for Visual Semantic Analysis)

PrimitivePose: 3D Bounding Box Prediction of Unseen Objects via Synthetic Geometric Primitives

Jan 2023

A. Kriegler, C. Beleznai, M. Murschitz, K. Göbel, M. Gelautz

10.1109/IRC55401.2022.00040 (2022 Sixth IEEE International Conference on Robotic Computing (IRC))

Paradigmatic Revolutions in Computer Vision

Dec 2022

A. Kriegler

drive.google.com/file/d/1ItDGcljAQOYo-HKHJLcC4gAgapCIQPns/view (Advances in Neural Information Processing Systems 35 (NeurIPS 2022) - I Can't Believe It's Not Better (ICBINB) Workshop)

Pose-aware object recognition on a mobile platform via learned geometric representations

July 2022

C. Beleznai, P. Ausserlechner, A. Kriegler, W. Pointner

10.23919/ASCC56756.2022.9828370 (2022 13th Asian Control Conference (ASCC))

Visual Semantic Context Encoding for Aerial Data Introspection and **Domain Prediction**

Apr 2022

A. Kriegler, D. Steininger, W. Wöber

10.1007/978-3-031-04881-4 34 (Iberian Conference on Pattern Recognition and Image Analysis (IbPRIA) 2022)

Evaluation of Monocular and Stereo Depth Data for Geometry-Assisted Learning of 3D Pose

Nov 2021

A. Kriegler, C. Beleznai, M. Gelautz

10.3217/978-3-85125-869-1-01 (Proceedings of the OAGM Workshop 2021)

The Aircraft Context Dataset: Understanding and Optimizing Data Variability in Aerial Domains

Nov 2021

D. Steininger, V. Widhalm, J. Simon, A. Kiegler, C. Sulzbacher

 $\underline{10.1109/ICCVW54120.2021.00426}$ (2021 IEEE/CVF International Conference on Computer Vision Workshops (ICCVW))

Artificial Neural Networks Based Place Categorization

Oct 2020

A. Kriegler, W. Wöber, M. Aburaia

10.1007/978-3-030-62784-3_17 (The International Symposium for Production Research (ISPR))

Vision-based Docking of a Mobile Robot

Aug 2020

A. Kriegler, W. Wöber

10.3217/978-3-85125-752-6-03 (Joint Austrian Computer Vision and Robotics Workshop (ACVRW))

FH Technikum Wien: Artificial Neural Networks Based State Transition Modeling and Place Categorization

Nov 2018

A. Kriegler

 $\frac{\text{mechatronik-plattform.at/wp-content/uploads/2025/04/Tagungsband 2018}{\text{Mechatronik Plattform Österreich 2018}} (Konferenz der Mechatronik Plattform Österreich 2018)$

Theses _____

Visual Semantic Context Encoding for Data Harvesting and Domain Prediction

Sept 2020

A. Kriegler, W. Wöber

permalink.obvsg.at/ftw/AC16098872 (Master's Thesis (UAS Technikum Wien))

Artificial Neural Networks based State Transition Modeling and Place Categorization

June 2018

A. Kriegler, W. Wöber

www.researchgate.net/publication/352211259 Artificial Neural Networks based State Transition Modeling and Place Categorization (Bachelor's Thesis (2nd, UAS Technikum Wien))

Neuentwicklung der Schlackeauswurferkennung auf der Basis von MAT-LAB

Jan 2018

A. Kriegler, Olaf Nowitzki

www.researchgate.net/publication/352211347_Neuentwicklung_der_Schlackeauswurferkennung_auf_der_Basis_von_MATLAB (Bachelor's Thesis (1st, german, UAS Technikum Wien))