Andreas Ziegler

Robotics & CV Researcher/Engineer

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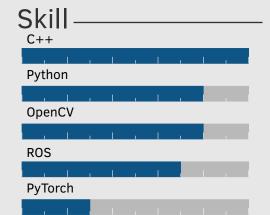- https://andreasaziegler.github.io
- 062.127@gmail.com
- Please find my full CV here

About me

I am passionate about a mix of robotics and computer vision research and industrial/commercial applications. My vision is to develop novel algorithms and make them work on real robots. I enjoy working independently on research and engineer projects, but I also appreciate the opportunity to exchange ideas with a variety of individuals from various backgrounds.

Skill

C++

Python

OpenCV

ROS

PyTorch

(*)[The skill scale is in years of experience.]

Languages

German: Level C2
English: Level C1
French: Level B1
Korean: Level A2
Chinese: Level A1

education

since 2021	PhD. Candidate in Robotics & Computer Vision *Event-based vision for fast robot control*	Tübingen, Germany
2014-2018	MSc. ETH in Electical Engineering Specialized in: Robotics, Computer Vision and Machine Learning	Zürich, Switzerland
2009-2013	BSc. FHO (HSR) in Electrical Engineering Specialized in: Digital Signal and Image Processing, Embedded Systems and Software Engineering and Mobile Communication Did an exchange year at the Shanghai Jiao Tong University in China	Rapperswil, Switzerland

publications

[1] A. Horvath, A. Ziegler, S. Gerhard, *et al.*, "Focus on time: Dynamic imaging reveals stretch-dependent cell relaxation and nuclear deformation," *Biophysical Journal*, Jan. 2021.

[2] A. N. Horvath, A. A. Ziegler, S. Gerhard, *et al.*, "Time-controlled multichannel dynamic traction imaging of biaxially stretched adherent cells," Mar. 2020.

[3] T. Cieslewski, A. Ziegler, and D. Scaramuzza, "Exploration without global consistency using local volume consolidation," in *IFRR International Symposium on Robotics Research (ISRR), Hanoi, 2019*, IFRR: IEEE, Oct. 2019.

experience

2021-	PhD Candidate Working on event-based computer vision for fast robot control in collaboration with Sony AI Zürich.	University of Tübingen, Tübingen
2022	Computer Vision & ML Research Intern Worked on slow motion from frame and event data.	Prophesee, Paris
2018-2021	Robotics Engineer Development and maintenance of software for automated guided vehicle (AGVs), including topics such as multi sensor fusion, mapping, path planning, (multi robot) obstacle avoidance, etc., Deputy Scrum Master.	MT-Robot AG, Zwingen
2018	Research Assistant Continued working on my master thesis project which lead to [3].	University of Zürich, Robotics and Perception Group, Zürich
2018	Research Associate Intern Integrated a Leica total station in an existing ROS setup within the PaintCopter project.	Disney Research Zürich, Zürich
2018	Research Assistant Developed an LED light controller for a microscope setup which contributed to [2].	Laboratory for Orthopaedic Biomechanics, Zürich
2017	Computer Vision & Robotics Research Intern Worked on indoor navigation for UAVs, investigation of barcode localization and detection algorithms for automatic inventory.	Pix4D SA, Lausanne
2015-2018	Software Engineer & System Administrator (20%)	Accelerom AG, Zürich
2013-2014	Research Assistant (Civil service) Worked on segmentation algorithms for computer-assisted surgical planning	CARD, University Hospital Balgrist, Zürich
2013	Research Assistant (Civil service) Extended and adapted a microscope control software which contributed to [1]	Laboratory for Orthopaedic Biomechanics, Zürich
2004-2008	Electronics Engineer Apprentice	Hch. Kündig & Cie. AG, Rüti

other information

In my free time, I like to do sports as balance to work. I also volunteer as a Foodsaver at Foodsharing and manage a Labdoo hub.