Denys Rozumnyi

Curriculum Vitae

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Education

Sep 2019 – Present	**ETH Zurich**, *PhD Student*, Supervisors: Prof. Marc Pollefeys, Dr. Martin Oswald, Computer Vision and Geometry Group, Zurich, Switzerland.
Jul 2017 – Jun 2019	**Czech Technical University in Prague**, *Master of Science (**with honours**)*, Specialisation: Computer Vision and Image Processing, Minor: Artificial Intelligence, GPA: 3.91 from 4.00.
Oct 2018 – Mar 2019	**Technical University of Munich**, *Erasmus+ Student Exchange Programme*, Master of Science in Computer Science.
Sep 2014 – Jun 2017	**Czech Technical University in Prague**, *Bachelor of Science (**with honours**)*, Specialisation: Computer Science, Minor Specialisation: Mathematics. GPA: 3.92 from 4.00.
Sep 2016 – Jan 2017	**Swansea University, Wales, UK**, *Erasmus+ Student Exchange Programme*, *Computer Science*.
Aug 2015	**Vision and Sports Summer School**, *Prague, Czech Republic*.

Work Experience

Mar 2018 – Present	**Research Fellow**, *Centre for Machine Perception*, CTU in Prague, Czech Republic. Topic: Tracking exploiting blur [5,6]. Supervisor: prof. Jiří Matas.
Jul 2018 – Aug 2018	**Student Summer Research Fellowship**, *ETH Zurich*, Zurich, Switzerland. Topic: Semantic 3D reconstruction [4]. Supervisors: prof. Marc Pollefeys, Dr. Martin Oswald.
Aug, Sep 2017	**Summer Internship**, *Tampere University of Technology*, Tampere, Finland. Creating real-time demo in C++ for fast moving objects detection: `https://github.com/rozumden/fmo-cpp-demo`. Supervisors: prof. Jiří Matas, prof. Joni Kämäräinen.
Sep 2016 – Feb 2018	**Research Intern**, *Centre for Machine Perception*, CTU in Prague, Czech Republic. Topic: Detection and tracking of fast moving objects [2]. Supervisor: prof. Jiří Matas.
Jul 2016 – Aug 2016	**Summer Internship**, *Tampere University of Technology*, Tampere, Finland. Topic: Detection and tracking of fast moving objects [2]. Supervisor: prof. Jiří Matas.
Sep 2014 – Jun 2016	**Research Intern**, *Centre for Machine Perception*, CTU in Prague, Czech Republic. Topic: Coplanar repeated patterns detection in images [1]. Supervisor: James Pritts, Ondřej Chum.

Awards

Sep 2019	Best Paper Honorable Mention at GCPR 2019.
Jun 2019	Master's degree with distinctions.
Jan 2018	**Valeo scholarship** - two-year scholarship for exceptional master students at CTU sponsored by Valeo (multinational company for automotive driving).
Jan 2018	**Upsilon Pi Epsilon** - lifetime membership in honour society Upsilon Pi Epsilon: International Honor Society for the Computing and Information Disciplines.
Nov 2017	**Josef Hlávka's Award** (Cena Josefa Hlávky) – a highly prestigious award for best students and graduates in the Czech Republic. Awarded by The Foundation of Josef, Marie and Zdeňka Hlávka, the oldest Czech foundation established in 1904.

Aug 2017	**Dean's Award** for an exceptional bachelor thesis. Bachelor's degree with distinctions. Faculty of Electrical Engineering, Czech Technical University in Prague.
2014-2019	Stipends for excellent study results.

Demos and talks

10.05.2019	CTU – Invited speaker, Prague, Czech Republic. YouTube: `https://youtu.be/95ekFuXtUsk`
07.07.2018	EECVC'18 – Invited speaker at Eastern European Conference on Computer Vision, Odessa, Ukraine. YouTube: `https://youtu.be/mhyhNygOIgU`
10.09.2017	Tampere University of Technology (TUT), Tampere, Finland. Demo and presentation showing and explaining fast moving objects detection.
23.07.2017	IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2017, Honolulu, Hawaii. Presented demo on fast moving objects.
26.04.2017	Enable-S3: WP3.1 Machine Learning Workshop in Prague – talk about fast moving objects at a small conference for professionals in the field of autonomous driving.

Contests

Google Hash Code 2018	Online team programming competition. Team: OI Gang, Rank: 493 out of 4852.
Kyiv City Olympiads	Mathematical Olympiad: twice second place and twice third place in years 2010-2014. Physics Olympiad: once second place and once third place in years 2012-2014. Programming Olympiad: once second place and twice third place in years 2012-2014.

Programming Skills

Advanced	Matlab, Python, C++, Java
Intermediate	Bash, (La)TeX, MySQL

Languages

Fluent	**English, Czech**
Native	**Ukrainian, Russian**
Basic	**German, French**

Publications

[7] D. Rozumnyi. *All-speed Long-term Tracker Exploiting Blur*. Master thesis, Czech Technical University in Prague, 2019.

[6] D. Rozumnyi, J. Kotera, F. Šroubek, J. Matas. *Non-Causal Tracking by Deblatting.* In 41th German Conference on Pattern Recognition (GCPR) 2019, oral, **Best Paper Honorable Mention**.

[5] J. Kotera, D. Rozumnyi, F. Šroubek, J. Matas. *Intra-frame Object Tracking by Deblatting.* In Visual Object Tracking (VOT2019) Workshop in conjunction with ICCV2019.

[4] D. Rozumnyi, I. Cherabier, M. Pollefeys, M. Oswald. *Learned Semantic Multi-Sensor Depth Map Fusion.* In 3DRW2019 Workshop in conjunction with ICCV2019.

[3] D. Rozumnyi. *Tracking, Learning and Detection over a Large Range of Speeds*. Bachelor thesis, Czech Technical University in Prague, 2017.

[2] D. Rozumnyi, J. Kotera, F. Šroubek, L. Novotný, J. Matas. *The World of Fast Moving Objects*. In IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2017, Honolulu, Hawaii.

[1] J. Pritts, D. Rozumnyi, M. P. Kumar, O. Chum. *Coplanar Repeats by Energy Minimization*. In the 27th British Machine Vision Conference (BMVC) 2016, York, England.