

Adam Novozámský | Curriculum Vitae

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postdoc, doctor of natural sciences - mathematical engineering
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Education

- **Czech Technical University in Prague** **PhD**
Faculty of Nuclear Science and Physical Engineering, Department of Mathematics 2010 – 2018
Selected Application Areas Of Image Processing: Image Forensics And Medical Imaging
- **Czech Technical University in Prague** **MSc**
Faculty of Nuclear Science and Physical Engineering, Department of Physical Electronics 2008 – 2010
Software for tomographic reconstruction of refractive index profile of special optical fiber preforms
- **Czech Technical University in Prague** **BSc**
Faculty of Nuclear Science and Physical Engineering, Department of Physical Electronics 2003 – 2008
The Electronic Guard of Physically Handicapped Persons

Work History

- **Institute of Information Theory and Automation, The Czech Academy of Sciences** **Prague**
postdoc 2018 – current
Development of image analysis software tools for forensic, industrial and medical applications.
- **Institute of Information Theory and Automation, The Czech Academy of Sciences** **Prague**
junior research fellow 2010 – 2018
Research on image processing, computer vision, and machine learning.
- **Institute of Photonics and Electronics, The Czech Academy of Sciences** **Prague**
junior research fellow 2009 – 2011
Research on optical fiber preforms and software programming
- **Norddeutsche Pflanzenzucht Hans-Georg Lembke KG** **Island of Poel - Germany**
Agricultural Work 2002 – 2004
Three times student job program abroad during the summer in 8 week duration. The work was focusing on the oilseed rape breeding and seed processing.

Teaching

- **Digital image processing in practice** **CUNI MFF**
leadership of the course 2013 – current
The seminar aims at digital image processing and pattern recognition.

- **Image processing and recognition I.**
leadership exercises
Introductory course in digital image processing and recognition.

CTU FNSPE
2010 – current
- **Image processing and recognition II.**
leadership exercises
The general theory of feature analysis and its application to the object recognition in digital images.

CTU FNSPE
2010 – current

Selected Publications

- [1] Adam Novozámský, Dominik Vít, Filip Šroubek, Jiří Franc, Milan Krbálek, Zuzana Bílková, and Barbara Zitová. Automated object labeling for cnn-based image segmentation. In *2020 IEEE International Conference on Image Processing (ICIP)*, pages 2036–2040, Oct 2020. doi: <https://doi.org/10.1109/ICIP40778.2020.9191320>.
- [2] Adam Novozámský, Babak Mahdian, and Stanislav Saic. Imd2020: A large-scale annotated dataset tailored for detecting manipulated images. In *2020 IEEE Winter Applications of Computer Vision Workshops (WACVW)*, pages 71–80, March 2020. doi: <https://doi.org/10.1109/WACVW50321.2020.9096940>.
- [3] Adam Novozámský and Michal Šorel. Detection of copy-move image modification using jpeg compression model. *Forensic Science International*, 283:47–57, 2018. ISSN 0379-0738. doi: <https://doi.org/10.1016/j.forsciint.2017.11.031>.
- [4] Adam Novozámský, Jan Flusser, Ilja Tachecí, Lukáš Sulík, Jan Bureš, and Ondřej Krejcar. Automatic blood detection in capsule endoscopy video. *Journal of Biomedical Optics*, 21(12):1 – 8, 2016. doi: <https://doi.org/10.1117/1.JBO.21.12.126007>.
- [5] Jan Kamenický, Michal Bartoš, Jan Flusser, Babak Mahdian, Jan Kotera, Adam Novozámský, Stanislav Saic, Filip Šroubek, Michal Šorel, Aleš Zita, Barbara Zitová, Zdeněk Šíma, Petr Švarc, and Jan Hořínek. Pizzaro: Forensic analysis and restoration of image and video data. *Forensic Science International*, 264: 153–166, 2016. ISSN 0379-0738. doi: <https://doi.org/10.1016/j.forsciint.2016.04.027>. Special Issue on the 7th European Academy of Forensic Science Conference.

Grants I worked on

- **FW01010343**
Mobile diagnostic system for milk production

Technology Agency of the Czech Republic
2020 – 2022
- **TH04010422**
VKG 3.0: a new system for the diagnosis of vocal disorders

Technology Agency of the Czech Republic
2019 – 2021
- **TN01000024**
NCC - Cybernetics and Artificial Intelligence

Technology Agency of the Czech Republic
2018 – 2020
- **825227**
PROVENANCE - PROviding VERificatioN AssistaNCE for New Content

H2020-EU.2.1.1.
2018 – 2021
- **TJ01000181**
Automated Software System In Speech-Language Therapy

Technology Agency of the Czech Republic
2018 – 2019
- **TA04010877**
Automatic evaluation of videokymographic recordings

Technology Agency of the Czech Republic
2014 – 2017

- **NT13532** **Technology Agency of the Czech Republic**
Capsule endoscopy in diagnostics of small bowel 2012 – 2015
- **VG20102013064** **Ministry of Interior**
Tools for image forensics 2010 – 2013
- **VF20102012010** **Ministry of Interior**
Development of methods for data authentication 2010 – 2012

Workshops and Summer Schools

- **International Computer Vision Summer School** **Sicilia, Italy**
poster presentation 2012
The school is open to about 100 qualified, motivated and pre-selected candidates.
- **Summer and Winter School of Image Processing** **UTIA**
oral presentations 2010 – current
The Winter and Spring Schools of Image Processing are popular workshops organized by our department.

Interests and extra-curricular activity

- **Multikemp - multi sport kemp** **Athletes in Action**
leadership of the camp 2008 – current
Athletes in Action is a non-profit American sports organization founded in 1966. I work as volunteer in Czech section and I am responsible for the preparation of the 6-days summer camp - Multikemp. The camp consist of sport training, unique outdoor activities, and games and is open to all students aged 14 to 21. There are over 120 participants and about 30 Czech and US instructors and coaches every year.
- **Web Design** **WEBAN**
developer 2003 – current
I design my projects in Content Management System Joomla, which helps me to prepare the web side in short time with good performance and nice results without high costs.
Reference: Multikemp, KSB Benátky nad Jizerou, Keltiamed, Noviny pod Ralskem
- **Hobby Beekeeper** **Czech Association of Beekeepers**
Benátky nad Jizerou 2013 – current
I took over this interesting activity from my father-in-law. Nowadays, I take care of 4 hives and produce about 100 kg honey per year.
- **Competitive Volleyball** **VK Benátky nad Jizerou**
outside hitter 2012 – current
I played many sports when I was little, but Volleyball was always my favorite. In 2012, when we moved to Benátky, I change my home team to VK Benátky nad Jizerou - B. We play the highest clay league in the Czech Republic.
- **Running**
in the forest 2019 – current
Benátky has many nice forest paths. I am running in any weather except January and February and I run 1,200 km every year.