FILIP RADENOVIĆ

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Date of birth 09 March 1990 | **Nationality** Montenegrin

PROFESSIONAL EXPERIENCE

2019 Sep – Present: **Research Scientist**
Facebook AI Applied Research,
Facebook, Menlo Park, USA

2018 May – 2018 Aug: **Research Intern**
Facebook AI Applied Research,
Facebook, Menlo Park, USA

2013 Nov – 2019 Aug: **Researcher**
Center for Machine Perception,
Czech Technical University in Prague, Prague, Czechia

2013 Jan – 2013 Oct: **Research Intern**
Faculty of Electrical Engineering,
University of Montenegro, Podgorica, Montenegro

EDUCATION

2013 – 2019: **PhD Computer Vision**
Visual Recognition Group, Center for Machine Perception, Faculty of Electrical Engineering, Czech Technical University, Prague

- Supervisor: Ondřej Chum
- Principal area of study: Large scale image retrieval with emphasis on significant scale and viewpoint changes; Representation learning for image retrieval and recognition

2011 – 2013: **MSc Computer Sciences**
Faculty of Electrical Engineering, University of Montenegro, Podgorica

- Thesis: Detection and reconstruction of rigid bodies after micro-Doppler removal in the radar imaging analysis; Supervisor: Vesna Popović-Bugarin
- Principal areas of study: Digital signal and image processing; Expert systems; Adaptive discrete systems; Databases and Information systems
- Average grade: 10.00 out of 10, the best student in the class

2008 – 2011: **BSc Electronics, Telecommunications and Computers**
Faculty of Electrical Engineering, University of Montenegro, Podgorica

- Principal areas of study: Programming; Computer engineering; Analogue and Digital electronics; Analogue and Digital telecommunications; Electromagnetics; Mathematics; Physics
- Average grade: 10.00 out of 10, the best student in the class

SKILLS

- **Computer skills:** Programming in MATLAB, Python, C(++), Android Development (Java)
- **Languages:** Fluent in English and Montenegrin/Serbian (native)

HONORS AND AWARDS

- **Dean's Award for Prestigious Thesis,** Faculty of Electrical Engineering, CTU in Prague **(2019)**
- **Outstanding Reviewer Honorable Mention,** British Machine Vision Conference **(2019)**
- **Outstanding Reviewer award,** Conference on Computer Vision and Pattern Recognition **(2019)**
- **Top 4% (11th/281) / 7% (9th/144)** in the **Google Landmark Recognition / Retrieval (2019)**
- **Top 1% (3rd/477) / 3% (6th/209)** in the **Google Landmark Recognition / Retrieval (2018)**
- **Best presentation award,** Computer Vision Winter Workshop (CVWW) **(2018)**
- **Best technical and natural sciences student plaque award,** University of Montenegro **(2012)**
- **Best science student award**, Montenegrin Academy of Sciences and Arts **(2010)**
- **Exceptional student capital city award**, Capital City Podgorica **(2010)**

PROJECTS

- **Large-Scale Image Retrieval Benchmarking: Revisiting Oxford and Paris (2018)**
  - Toolbox that provides support in downloading and using the new large-scale image retrieval benchmark containing more than million images.
- **CNN Image Retrieval – MATLAB/MatConvNet** and **Python/PyTorch (2017/2018)**
  - Toolbox that implements the training and testing of the convolutional neural networks (CNN) for the task of image retrieval.

INVITED TALKS

- **Large Scale Image Retrieval,** Computer Vision course, FH Hagenberg **(2018)**
- **Image Retrieval Overview,** Machine Learning Meetups, Prague **(2017)**
- **Image Retrieval: From basics to recent advances,** Machine Learning Prague Workshop **(2017)**
- **Image Retrieval 2.0,** Pattern Recognition and Computer Vision Colloquium, Prague **(2015)**

SELECTED PUBLICATIONS

- **Radenović F.**, Tolias G., Chum O., **Fine-tuning CNN Image Retrieval with No Human Annotation**, TPAMI 2019
- Tolias G., **Radenović F.**, Chum O., **Targeted Mismatch Adversarial Attack: Query With a Flower to Retrieve the Tower,** ICCV 2019
- **Radenović F.**, Tolias G., Chum O., **Deep Shape Matching,** ECCV 2018
- Mishkin D., **Radenović F.**, Matas J., **Repeatability Is Not Enough: Learning Affine Regions via Discriminability,** ECCV 2018
- **Radenović F.**, Iscen A., Tolias G., Avrithis Y., Chum O., **Revisiting Oxford and Paris: Large-Scale Image Retrieval Benchmarking,** CVPR 2018
- Mishchuk A., Mishkin D., **Radenović F.**, Matas J., **Working hard to know your neighbor's margins: Local descriptor learning loss**, NIPS 2017
- **Radenović F.**, Tolias G., Chum O., **CNN Image Retrieval Learns from BoW: Unsupervised Fine-Tuning with Hard Examples**, ECCV 2016 **(oral)**
- **Radenović F.**, Schönberger J. L., Ji D., Frahm J., Chum O., Matas J., **From Dusk till Dawn: Modeling in the Dark**, CVPR 2016 **(spotlight)**
- **Radenović F.**, Jégou H., Chum O., **Multiple Measurements and Joint Dimensionality Reduction for Large Scale Image Search with Short Vectors**, ICMR 2015
- Schönberger J. L., **Radenović F.**, Chum O., Frahm J., **From Single Image Query to Detailed 3D Reconstruction**, CVPR 2015

- Reviewer for high-impact journals: **TPAMI, IJCV, CVIU, IEEE-SPL**
- Reviewer for conferences: **CVPR (2020, 2019), ICCV (2019), ECCV (2020), BMVC (2019), ICPR (2018)**