

ANTONIN VOBECKY

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EDUCATION

Czech Technical University in Prague Prague, Czechia
Ph.D. in Computer Vision and Machine Learning 2019 - ongoing

- Advisors: Josef Sivic (Czech Technical University, Prague), Patrick Pérez (Kyutai, Paris)
- Research area: Weakly supervised learning for visual recognition

*Research on the training of machine learning models with limited annotated data available.
The motivation is the high cost of the data annotation process.*

Czech Technical University in Prague Prague, Czechia
Master degree in Computer Vision and Image Processing 2017 - 2019

- Thesis: Data Augmentation for Neural Networks Training

Machine learning models require large amounts of annotated data. In this thesis, I developed an approach to extend the training dataset of machine-learning models using generative neural networks.

PUBLICATIONS

A. Vobecky et al., Pop-3D: Open-vocabulary 3D occupancy prediction from images. In *NeurIPS*, 2023.

A. Vobecky et al., Drive&segment: Unsupervised semantic segmentation of urban scenes via cross-modal distillation. In *ECCV*, 2022. *Oral presentation (top 3%)*

A. Vobecky et al., Artificial dummies for urban dataset augmentation. In *AAAI*, 2021.

A. Vobecky et al., Advanced pedestrian dataset augmentation for autonomous driving. In *ICCVw*, 2019.

INTERNSHIPS

valeo.ai | Paris, France '21,'22,'23,'24
• Research following the direction of my Ph.D. topic.

EUROPEAN PROJECTS

EXA4MIND – Extreme Analytics for Mining Data spaces

AWARDS AND HONORS

- Essay competition winner at ICVSS'23 2023
- Oral presentation of paper at ECCV (top 3% of papers) 2022
- Academic Scholarship, CTU in Prague & Valeo 2017
- Dean's award for bachelor thesis 2017

SKILLS

Languages: English (fluent), Czech (native), German (beginner), French (beginner).

Programming: Python, Linux shell, MATLAB.

Machine learning: PyTorch, Tensorflow, scikit-learn, numpy

Presentation and communication skills, team player

RESEARCH INTERESTS

machine learning, computer vision, learning with limited annotated data

multi-modal models (image+language), large language models, self-supervised learning, transformers, language-image alignment

OTHERS

Hobbies: sports, hiking, reading, friends

Volunteering: help in a local nursing home during COVID pandemic, work at poor regions in Czech borderlands (SummerJob)

Work with kids and young adults: summer camp "Runway", formative and animation course "LIFT"

ACADEMIC SERVICES

Reviewer for: International Journal of Computer Vision, The IEEE/CVF Conference on Computer Vision and Pattern Recognition, Conference on Neural Information Processing Systems, IEEE Robotics and Automation Letters