Aleksander Bojda

↓ +48 660 210 707
☑ alebojd@gmail.com
☑ Wrocław, Poland

in abojda

🗘 abojda

🚱 abojda.github.io

August 2022 – Present

Work Experience

Personal development

Deep Learning Engineer

- Became proficient with deep learning frameworks, including PyTorch and PyTorch Lightning
- Developed and deployed state-of-the-art deep learning models, with a focus on solving computer vision problems, utilizing a diverse range of training techniques, including transfer learning and self-supervised learning
- Implemented effective data augmentation strategies and conducted comprehensive hyperparameter tuning to optimize model performance and enhance generalization capabilities
- Acquired extensive knowledge in both classical machine learning (supervised and unsupervised) and advanced deep learning techniques, including Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), Transformers, and Generative Adversarial Networks (GANs)

Agribot

January 2020 – August 2022

Robotics Software Engineer

- Developed high-accuracy tomato peduncle detection system using YOLOv5 and depth map from stereo camera, achieving millimeter-level accuracy
- Deployed TensorRT models on Jetson Nano and PC, leveraging AWS cloud for model training experiments
- Established an in-house labeling team for efficient model training and data annotation
- Designed and implemented pointcloud-based obstacle detection system for autonomous orchard tractor
- Developed centimeter-level localization system for autonomous orchard tractor, conducting field tests with RTK GNSS receivers, IMUs, and wheel encoders, and tuning the localization Kalman Filter using real-world and simulation data

Education

Embedded Robotics

Master's degree program February 2018 – September 2019 Thesis: Indoor localization of a mobile robot with odometry, IMU and Decawave modules Grade: Very good (5.0)

Control Engineering and Robotics

Wrocław University of Science and Technology October 2014 – February 2018

Wrocław University of Science and Technology

Bachelor's degree program Thesis: Monitoring and management of a mobile robot group in ROS environment Grade: Very good (5.0)

Skills

Deep Learning Computer Vision ML and Data Science Other Python, PyTorch, PyTorch Lightning TIMM, torchvision, albumentations, OpenCV, PIL scikit-learn, numpy, pandas Linux, Docker, AWS, Git

I agree to the processing of personal data provided in this document for realising the recruitment process pursuant to the Personal Data Protection Act of 10 May 2018 (Journal of Laws 2018, item 1000) and in agreement with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).