# Oleksandr [Alex] **Bailo**

COMPUTER VISION · DEEP LEARNING

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## Summary

Programming Languages: Python (proficient) • C/C++ (proficient) • Java (prior experience) • MatLab (prior experience)
Technical skills: Pytorch • Caffe • Tensorflow • OpenCV • LaTeX • Git
Languages: Fluent in English, Russian and Ukrainian; Advanced level in Korean.

## Experience

**Qualcomm** — MACHINE LEARNING RESEARCHER (SENIOR), XR TEAM — *Amsterdam, Netherlands*
*Jul. 2021 - present*
- Researching and developing mobile AR and VR enabling technology

**AnyVision** — DEEP LEARNING RESEARCHER AND SCRUM MASTER — *Belfast, UK*
*Apr. 2020 - Jun. 2021*
- Body detection and model evaluation tools to understand application scenario
- Body re-identification
- Replay face spoofing attack detection

**Kakao Brain** — DEEP LEARNING RESEARCH ENGINEER — *Seongnam, S.Korea*
*Nov. 2019 - Mar. 2020*
- Human pose estimation and action similarity research for fitness tracking

**Noul Inc.** — COMPUTER VISION & DEEP LEARNING RESEARCH ENGINEER — *Yongin, S.Korea*
*Aug. 2017 - Oct. 2019*
- Microscopy diagnosis of malaria. Development from training to edge product integration
- Created hematology analyzer with detection, segmentation, and classification capabilities
- Research on GANs for medical data augmentation resulting in publication

**Healthrian** — SOFTWARE ENGINEER, INTERN — *Daejeon, S.Korea*
*Jun. 2015 - Aug. 2015*
- Developed an Android application for ECG medical device

**My Design Lab • KAIST** — UNDERGRADUATE RESEARCHER — *Daejeon, S.Korea*
*Dec. 2014 - Jun. 2015*
- Developed a drone to implement wall painting works for skyscrapers

## Education

**Korea Advanced Institute of Science and Technology (KAIST)** — *Daejeon, S.Korea*
M.S. IN ELECTRICAL ENGINEERING. ROBOTICS AND COMPUTER VISION [LAB.] SUPERVISED BY [IN SO KWEON] — *Sep. 2015 - Aug. 2017*
- A real-time vehicular vision system to seamlessly see-through cars
- Intelligent assistant for people with low vision abilities
- Machine learning-based autonomous vehicle vision system

**Korea Advanced Institute of Science and Technology (KAIST)** — *Daejeon, S.Korea*
B.S. IN ELECTRICAL ENGINEERING & BUSINESS AND TECHNOLOGY MANAGEMENT — *Sep. 2011 - Aug. 2015*
- Manager at KAIST International Basketball Club (KIBC)
- Vice President, Public Relations Head at KAIST International Student Association (KISA)

## Selected Publications

### INTERNATIONAL JOURNALS

**IJCV**22 Real-Time Multi-Car Localization and See-Through System
**Access**21 A Body Part Embedding Model With Datasets for Measuring 2D Human Motion Similarity
**PRL**18 Efficient ANMS for homogeneous spatial keypoint distribution

### INTERNATIONAL CONFERENCES

**CVPRW**19 Red blood cell image generation for data augmentation using cGAN
**ICCV**17 VPGNet: Vanishing Point Guided Network for lane and road marking detection and recognition
**WACV**17 Robust road marking detection and recognition using density-based grouping and ML techniques