Fei Pan

https://feipan664.github.io
Ph.D. Candidate, EE, KAIST
feipan@kaist.ac.kr
Address: Room 211, N1, 291 Daehak-ro, Daejeon, 34141
+82-10-3708-0726

Education

- **KAIST** — Daejeon, Korea
  Ph.D. in Electrical Engineering; supervised by Prof. In So Kweon — *Mar 2018 - Present*
- **KAIST** — Daejeon, Korea
  M.S. in Electrical Engineering; supervised by Prof. Chang D. Yoo — *Mar 2016 - Feb 2018*
- **Xidian University** — Xi'an, China
  B.S. in Telecommunication Engineering; GPA: 3.7/4.0 (top 1 among 43) — *Aug 2011 - Jul 2015*

Research Interests

My research interests lie in the general area of computer vision and machine learning, particularly in deep learning, transfer learning, and generative models, as well as their applications in semantic segmentation, person re-identification, scene understanding tasks.

Publications

International Conferences

- **Fei Pan**, Inkyu Shin, Francois Rameau, Seokju Lee, In So Kweon. Unsupervised Intra-domain Adaptation for Semantic Segmentation through Self-Supervision. In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020. *(oral, accept rate < 3%)*
- Junsik Kim, Tae-Hyun Oh, Seokju Lee, **Fei Pan**, In So Kweon. Variational Prototyping-Encoder: One-Shot Learning with Prototypical Images. In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019.
- Sanghyuk Park, **Fei Pan**, Sunghun Kang, and Chang D. Yoo. Driver Drowsiness Detection System Based on Feature Representation Learning Using Various Deep Networks. In *The Asian Conference on Computer Vision (ACCV) Workshop on Driver Drowsiness Detection from Video*, 2016.

Master Defence Thesis: Deep Recursive Segmentation Networks

Projects

- **Bosch-KAIST Joint PhD Program** — funded by Robert Bosch GmbH
  Researcher — *Aug 2019 - Present*
  - Sponsored by Bosch to research on new frameworks and algorithms for domain adaptation in different utilization environments with fusion of multiple visual data.
- **Bosch-KAIST Smart Car Project: SeeAnything** — funded by Robert Bosch GmbH
  Deep Learning Engineer — *Nov 2018 - Present*
  - The goal of this project is to develop novel technologies toward collaboration between CCTV cameras and multiple connected vehicles. I am in charge of background subtraction, road mark segmentation, and person re-identification parts.
- **Highly Accurate Saliency Detection System** — funded by Mirero System Co., LTD
  Deep Learning Engineer — *Mar 2017 - Nov 2017*
  - The goal of this project is to develop a saliency detection system of high accuracy on benchmark datasets. My job is to design a end-to-end Covolutional Neural Network-based model for saliency detection.

Experience

- **Robotics and Computer Vision Lab** — Daejeon, Korea
  Research Assistant — *Feb 2018 - Present*
  - Supervised by Professor In So Kweon.
  - Research on domain adaptation and transfer learning for semantic segmentation.
- **Artificial Intelligence and Machine Learning Lab** — Daejeon, Korea
  Research Assistant — *Feb 2016 - Jan 2018*
  - Supervised by Professor Chang D. Yoo.
  - Research on semantic segmentation and saliency detection.
  - Master Thesis title: Deep Recursive Segmentation Networks
- **Suanier Co., LTD** — Xi'an, China
  Software Engineer Intern — *Aug 2015 - Jan 2016*
  - Implemented on SIFT algorithm for 3D point cloud reconstruction.
- **Undergraduate Research Program** — Xi'an, China
  Internship — *Sep 2014 - Jul 2015*
  - Supervised by Professor Tian Tian
  - Implemented a MIMO channel estimation based on MATLAB.

Skills

- **Prog. Lang.**:Python, Matlab, C/C++, HTML, LaTeX, Markdown
- **Deep Learning**: Pytorch, Tensorflow, Keras
- **Library**: Numpy, Scipy, Scikit-learn, OpenCV, Matplotlib

Accomplishments

- **Bosch PhD Program Scholarship** (EUR €22000 per year), Robert Bosch GmbH, 2019 - 2022.
- **KAIST Scholarship**, KAIST EE, 2016 - 2022.
- **Outstanding Graduate Award**, Xidian University, 2015.
- **Shenzhen Goodix Technology Scholarship** (RMB ¥5000), 2015.
- **National Scholarship** (RMB ¥8000 per year), Ministry of Education of P.R. China, 2012, 2013, 2014.

Reviewer Experiences

- CVPR 2020 - Visual Learning with Limited Labels Worshop.

Language

- **English**: Professional Proficiency
- **Chinese**: Native Proficiency
- **Korean**: Beginner