Daolang Huang

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EDUCATIONAL BACKGROUND

Aalto University, GPA: 4.9/5 (Major 5/5) Sept. 2020 - Present

- Master of Science in Machine Learning, Data Science and Artificial Intelligence (Macadamia)
- Aalto University Scholarship (100% tuition waiver)

Jinan University, GPA: 87/100 (Major 89/100) Sept. 2016 - July 2020

- Bachelor of Engineering in Computer Science and Technology
- Honorary Awards: First-class Scholarship for Outstanding Students of JNU, 2018

PUBLICATION

- **Huang, D.**, & Perez, R. F. (2021 July). Technical report. SSELDnet - A Fully End-to-End Sample-Level Framework for Sound Event Localization and Detection. In *IEEE AASP challenge on Detection and Classification of Acoustic Scenes and Events 2021.*
- Zheng R., Zhang, Y., **Huang, D.**, & Chen, Q. (2020 August). Sequential Convolution and Runge-Kutta Residual Architecture for Image Compressed Sensing. In *European Conference on Computer Vision 2020* (pp. 232-248). Springer, Cham.
- Zheng, R., **Huang**, **D.** (2020 January). Convolutional Compressed Learning with Knowledge Distillation. Manuscript submitted for publication

RESEARCH EXPERIENCE

Targeted-Aware Bayesian Active Learning June 2021 - Aug. 2021

- Develop a deep Bayesian active learning system for multi-objective treatment effect prediction
- Explore different epistemic uncertainty estimation methods for Bayesian neural network

Sound Events Localization and Detection using Deep Learning Oct. 2020 - June 2021

- Proposed an end-to-end sample-level SELD framework which investigate the possibility to apply representation learning directly to the raw audio
- Explore different deep learning architectures, as well as data augmentation techniques, to improve the performance of sound detection and localization

Image Compressed Sensing Research Nov. 2019 - Mar. 2020

- Proposed Runge-Kutta Convolutional Compressed Sensing Network (RK-CCSNet) and achieved state-of-the-art performance in deep compressed sensing
- Paper accepted by European Conference on Computer Vision 2020 (ECCV 2020)

Convolutional Compressed learning Research July 2019 - Nov. 2019

- Utilized the convolution kernel to replace the vectorized linear projection to retain the spatial feature of images and used knowledge distillation to improve the model by knowledge transfer from fully observed model to partial observed model
- Achieved state-of-the-art results on the CIFAR-10 and CIFAR-100 datasets under the same compressed rate

Plant Pathology 2020 - CVPR Fine-Grained Visual Categorization (FGVC7) May 2020 - June 2020

- Kaggle fine-grained visual categorization competition to predict plant pathology
- Ranked 17th/23rd in Public/Private Leaderboard (Top 1%)

Biochemical System Research May 2019 - July 2019

- Created a model that can replicate the behavior of the target system by quantitatively optimizing the kinetic rate to fit the concentration rate curve of the targeted biochemical reactant through the back-propagation technique
- Assumed the complex reactants in the synthetic model, found the potential reaction of the target biochemical system

WORK EXPERIENCE

Aalto University - Department of Computer Science June 2021 - Aug. 2021

- Summer intern of Probabilistic Machine Learning Group (PML)
- Topic: Targeted-aware Bayesian active learning

Jinan University - University of Birmingham Joint Institute at JNU Feb. 2020 - June 2020

- Teaching Assistant of course “C Programming”
- Responsible for assignment correction and Q&A section

Neuedu Education Technology Co., Ltd. June 2019 - Aug. 2019

- Summer intern, Python developer
- Collaborated with teammates to develop some web crawler projects using Scrapy

SKILLS & LANGUAGES

- **Programming Language**: Python, Java, C, R
- **Specialized Skills**: Machine learning, Deep learning, Computer vision, Music information retrieval, SQL
- **Language**: English (C1), Mandarin (native)