Raden Muhammad Mu'az bin Muhammad Mun'im

raden.m.muaz@gmail.com | github.com/radenmuaz/ | radenmuaz.github.io | linkedin.com/in/radenmuaz/

Education

Universiti Teknologi Malaysia

B.Eng Electrical - Mechatronics - CGPA 3.76/4.00 — 9/2012 – 10/2016

- ➔ Final Year Project: "Application of Simultaneous Localisation and Mapping in Automated Guided Vehicle Robot" [pdf, poster]

Tokyo Institute of Technology (東京工業大学)

M.Eng Computer Science - CGPA 3.21/4.00 — 4/2018 – 3/2020

- ➔ Dissertation: "Model Compression for Deep Learning" [pdf]

Work Experience

Shinoda Lab, Tokyo Institute of Technology

Research Assistant — 12/2018 – 1/2019

Research Assistant — 10/2019 – 2/2020

- ➔ Research for Master's degree dissertation, on model compression with knowledge distillation training for speech-to-text models.

Institute of Infocomm Research (I2R), A*STAR Singapore

Research Assistant — 3/2019 – 9/2019

- ➔ Research internship for pruning-based model compression for image classifier models.

King Abdullah University of Science and Technology (KAUST)

Visiting Student — 5/2020 – 9/2020

- ➔ Research internship on few-shot learning.

Aonic (Formerly Poladrone)

Research Engineer — 1/2022 – 9/2022

- ➔ Developed segmentation models to segment palm oil tree fronds from drone imagery.
- ➔ Developed PoC for drone object tracker to spray pesticide on palm oil tree with NVIDIA Jetson Nano running on Ardupilot-based drone.
- ➔ Developed PoC for drone path planner for spraying pesticide on palm oil trees.

Perisian Huda Sdn. Bhd.

Senior Machine Learning Engineer — 9/2022 – 11/2024

- ➔ Involved in various speech machine learning projects, such as voice activity detector, speech-to-text, text-to-speech, multimodal large language models (LLM).
- ➔ Develop and maintain streaming, real-time, on-device Arabic speech recognition models for Mushafi app [Google Play].

Publications

Raden Mu'az Mun'im, Nakamasa Inoue, Koichi Shinoda, "Sequence-level Knowledge Distillation for Model Compression of Attention-based Sequence-to-sequence Speech Recognition" - 2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) [paper][arxiv]

Raden Mu'az Mun'im, Jie Lin, Vijay Chandrasekhar, Koichi Shinoda, "MaskConvNet: Training Efficient ConvNets from Scratch via Budget-constrained Filter Pruning" [openreview]

Ahmed Ayyad, Yuchen Li, Raden Muaz, Shadi Albarqouni, Mohamed Elhoseiny "Semi-Supervised Few-Shot Learning with Prototypical Random Walks" - AAAI Workshop on Meta-Learning and MetaDL Challenge, PMLR 140:45-57, 2021 [paper]

Skills

Programming Languages: C, C++, Python, Java, Javascript
GNU/Linux: Ubuntu, CentOS, bash, git, SLURM, SGE, Docker
Scientific Computing: Numpy, Scipy, MATLAB, CUDA, OpenMPI, scikit-learn, OpenCV
Machine Learning: Pytorch, Tensorflow, ONNX, MLFlow
Electronics: PSPICE, ModelSim, embedded systems (AVR, Arduino, STM32, ESP8266)
Robotics: Ardupilot, MAVLink, ROS, Arduino, MATLAB, Simulink.

Languages

Malay: Native
English: Professional (IELTS Band 7.5, 2019)
Japanese: Intermediate (JLPT N3)
Arabic: Intermediate