+44 (0)784 2985481
Southampton, England
JZHOU3083@gmail.com

Jing Zhou

MSc in Machine Intelligence

Website: Seanote
github.com/JZhou3083
linkedin.com/in/jingzhou8968

With my aspiration to build a strong foundation in machine learning, I have applied myself to a wide range of projects and gained professional experience to build a strong portfolio of skills. My experience in working to clients' requirements, managing and presenting projects, as well as my drive to deliver beyond expectations and to further my technical knowledge has been developed and strengthened by my analytical, organisational and innovative skills, many of which I have detailed in below.

Skills

Programming: Python, C, MATLAB, SQL, Git, Bash
Quantitative Research: Machine learning algorithms, Data Modeling & Visualization, PyTorch & TensorFlow

General: Project Management(Agile), Presentation, Writing
Language: English(fluent), Chinese(native), Cantonese(native)
Certificates: The Ultimate MySQL Bootcamp: Go from SQL Beginner to Expert

Education

University of Southampton Sep 2020—Apr 2022
MSc Machine Intelligence for Nano-Electronic Devices and Systems, MINDS CDT Southampton, UK

- Relevant Modules: Foundation of Machine Learning, Reinforcement and Online Learning, Deep Learning

University of Sheffield Sep 2017—Sep 2018
MSc Advanced Control and Systems Engineering (Distinction) Dalian, China

- Relevant Modules: Intelligent and Vision Systems, Multi-sensor and Decision Systems, Signal Processing and Estimation

Dalian Maritime University Dec 2012 — Jul 2016
BSc Communication Engineering(72%) Dalian, China

- Relevant Modules: Signal Processing, Advanced Mathematics, Probability Theory and Statistics

Projects

Squeeze and Excitation Network for ResNet CNN Dec 2021 — Feb 2022
Personal Project Southampton, UK

- Developed a SE-ResNet network with PyTorch, created a training regime, and trained the model on the Iridis computing cluster.
- Identified a 5.5% average boosting effect of SE block on ResNet-18's performance and compiled an evaluation report.

Construct a Simulating Platform for Robot Active Audition Jul 2021— Oct 2021
Research student, MINDS Centre for Doctoral Training Southampton, UK

- Created and designed a new robotic simulator rendering multi-modal sound scenes for event localisation.
- Developed an interface between Miro-E robot and a room acoustic model using Panda3D, pysoundfile on Linux.
- Evaluated with measured acoustic data, produced a report on the rendering quality
- Produced notes for integration with real-time signals and future deployment to the Miro-E robot.

Group Project: Binarised Neural Network for Hearing Devices Mar 2021— Jun 2021
Research Student, MINDS Centre for Doctoral Training & Audio Analytic Southampton, UK

- Investigated and developed a CNN from a champion model(CRNN) of DCASE 2017 challenge as our baseline model and later its binary version (BNN), using TensorFlow, Keras and Larq libraries on Linux.
- Researched and employed a Binary optimizer that boosted the performance of BNN to the same level of the full precision model (95%), with a significantly reduced model size (4.5%). Models were trained on the Iridis computer cluster.
- Produced a detailed report for the client and a showcase presentation.

Work Experience

Shenzhen Probe Science & Technology Co., Ltd. Jun 2019 — Jul 2020
Control Systems Engineer Shenzhen, China

- Contributed to development and improvement of conventional ventilators by optimising air emission and pressure control using digital signal processing and PID control
- Developed software solution in C for real-time monitoring and analysis of ventilator parameters and control various mechanical actuators and valves, as well as implement features such as alarm function, storage function and network function

Activities

MINDS CDT Hackathon 2021 at Thales UK, Student Developer Sep 2021
Sheffield Uni Students' Union, Postgraduate Student Councilor 2017 — 2018
Royal Voluntary Service Sheffield, Student Volunteer Summer 2018