

Linlin Zeng

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EDUCATION

SINGAPORE MANAGEMENT UNIVERSITY – Singapore

Jan 2021- Mar 2022

Master of IT in Business (Artificial Intelligence Track)

- GPA: 3.32/4.00
- Courses taken: Applied Machine Learning, Data Management, Deep learning in Computer Vision, Reinforcement Learning, Cyber Security, IOT

SOUTHWEST UNIVERSITY - Chongqing, China

Sep 2015-Jun 2019

Bachelor of Science in Chemistry

- GPA: 3.36/4.00
- Courses taken: Advanced Mathematics I & II, Linear Linguistics, Organic Chemistry, Inorganic Chemistry, Physics Chemistry, Analytics Chemistry

COLORADO STATE UNIVERSITY – Denver, U.S

Aug 2017 – Dec 2017

Exchange program in Computer Science

EXPERIENCE

MONARCH TRACTOR – Singapore

April 2022 – Now

Data Scientist

- Fine-tuning object detection, segmentation and 3D pointcloud CNN models for auto-driving by DDP
- Developed and maintained end-to-end model pipeline, from data collection to modeling to deployment
- Implemented AI models and data pipelines to EC2, server and Jetson Orin platforms

INSTITUTE OF HIGH-PERFORMANCE COMPUTING LAB (IHPC) – Singapore

Aug 2021 – March 2022

Internship as a Research Engineer on Computer Vision in Medical Image Group

- Researched on adversarial attack and defense on medical images
- Developed classification algorithm on noise-labelled dataset, including co-teaching, knowledge distillation, label aversion and data augmentation
- Built eye diseases prediction FLASK API on container

PROJECTS

ROWFOLLOW FROM IMAGE AND POINCLLOUD

May 2022

- Developed algorithm to track driving direction with pointcloud and images as input
- Customize the model training based on application scenario
- Improved precision and speed from data-preprocessing, model structure and loss functions

2D VINEYARD SEGMENTATION

Dec 2021

- DDP fine-tuned the segmentation model to cope with various scenarios with consideration of speed and accuracy
- Added loss and memory module to model structure to enhance the video segmenting stability
- Coded the pytorch to tensorrt conversion algorithm on jetson orin
- Use rosbag to do data collection and prediction publishment

AUTOMATIC IMPLEMENT DETECTION

April 2021

- Researched and benchmarked object detection models
- Designed the whole model pipeline, including data collection, fine-tuning and evaluation and TensorRT conversion
- Calibrated images from fisheye camera using OpenCV
- Generated the ground truth using segmentation methods, avoiding manual labelling work
- Automated the whole pipeline to AWS, reducing the duplicate engineer work

ADVERSARIAL ATTACK TO MEDICAL IMAGE

Jan 2021

- Developed adversarial algorithms based on seniors' research ideas
- Experimented attack using adversarial attack (FGSM, PDG), special information logos and gradient heatmap

ADDITION

- Current Location: Singapore
- Citizen: Chinese
- Github: veraz00
- IELTS: 7.0

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