TIANYU ZHOU

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Skills: Machine Learning, Software Engineering, Python/C++, Linux

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EXPERIENCE

AI Engineer 2020.07 - present

Huawei, Sweden

- Neural network distributed training (e.g., Deeplab v3+, YOLOv5) with Pytorch and MindSpore
- Follow up AI research and implement models with MindSpore framework (e.g., Vision Transformer)
- Develop multithreaded applications for multi-camera decoding and neural network inference
- Developed an AI solution for Vattenfall with YOLOv3, FFmpeg, Huawei CANN (Nvidia CUDA), and docker on edge devices
- Migrated a sports video analytic software to Huawei Inference server; software latency improved by 50% with Huawei NPU accelerator
- Established an efficient way of working using container technology, doubled working efficiency for colleagues and Huawei partners
- Enable Huawei partners and customers to migrate or develop AI solutions on the Huawei AI platform by giving demos and facilitating technical workshops

Data Scientist 2018.09 - 2020.07

Scania, Sweden

- Conducted qualitative research by interviewing field experts for efficient data collection
- Built time-series and XGBoost models with macroeconomic datasets for order forecast
- Trained ML models to understand the factors that drive the Scania truck order lead time
- Interpreted trained models with LIME and quantified the impact of features

Research Assistant 2017.11 - 2018.09

Kungliga Tekniska Högskolan, Sweden

- Proposed a multimodal architecture including speech command, hand motion, and body motion
- Customized neural networks for representation learning and fusion
- Demonstrated potential for robust human-robot collaboration manufacturing systems
- Liu, H., Fang, **T., Zhou**, T., et al. 2018. Deep learning-based multimodal control interface for human-robot collaboration. Procedia CIRP, 72, pp.3-8.
- Liu, H., Fang, **T., Zhou**, T. and Wang, L., 2018. Towards robust human-robot collaborative manufacturing: Multimodal fusion. IEEE Access, 6, pp.74762-74771.

Master thesis specialized in Machine Learning 2018.02 - 2018.06

LakeTide, Sweden

- Explored heuristic-based path-finding algorithms such A* and Dijkstra's
- Trained neural networks with MXNet on route planning in simulated road networks
- Validated the potential of neural networks for traffic simulation (diva-portal)

EDUCATION

M.S., Data Science, Kungliga Tekniska Högskolan 2016 - 2018

B.Eng, Software Engineering, Shanghai Jiao Tong University 2012 - 2016