Yuxing Liu

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Education

Nanyang Technological University, Singapore **September 2022 – March 2024**
Master of Science Major in Signal processing
- Video Signal Processing
- Real-time DSP Design and Applications
- Image Analysis and Pattern Recognition
- Machine Vision

Southeast University, China **September 2018 – June 2022**
Bachelor of Engineering Major in Information Engineering
- Digital Signal Processing
- Information Theory and Coding
- Data Structure and Algorithm

Work Experience

Operating System Development Engineer **Aug 2025 - Present**
Huawei 2012 Laboratories – Central Software Institute, OS Department, OpenEuler Lab
- Drove technical landing of kernel-level memory-pooling communication acceleration for distributed computing frameworks, developing production-grade kernel drivers and validation frameworks
- Built automation validation system with industry-standard benchmark pipelines, achieving XX%+ cross-node task acceleration, XX%+ server utilization improvement, and XX%+ manual effort reduction
- Analyzed distributed system communication patterns to diagnose OS-level bottlenecks via zero-copy and memory semantics optimization

Focus: OpenEuler, OS for AI, kernel communication, big data workload analysis

AI Software Engineer **May 2024 – Jul 2025**
Huawei Digital Power – R&D Center, Controller Platform, Intelligent PV Controller
- Architected and implemented core energy dispatch modules for smart controllers, leading DI dry-contact scheduling and multiple critical subsystem designs to enable millisecond-level dynamic power optimization and grid compliance
- Engineered AI-powered PV-storage regulation within a multi-strategy coupled dispatch framework, achieving real-time coordinated control across large-scale deployments; delivered XXk+ lines of production-grade code and X+ core module designs
- Diagnosed and resolved X+ critical field issues in legacy product lines; spearheaded AI-RAG knowledge management initiative, accelerating cross-team knowledge transfer and onboarding efficiency

Focus: Intelligent energy dispatch, AI-driven power optimization, embedded software architecture

Python Developer Intern **Aug 2023 – Nov 2023**
Nanjing Ericsson Panda Communication – IND Product Design & Technical Support
- Contributed to ML-based fault diagnosis system, improving equipment anomaly detection accuracy by X%
- Developed async backend data pipeline achieving XXXk+ records/second log processing throughput

Focus: Intelligent fault diagnosis, automation

Software Test Engineer Intern **Jul 2021 – Aug 2021**
Hangzhou Hikvision Digital Technology
- Developed integration and performance testing frameworks for Linux-based embedded devices; participated in network protocol simulation and security scanning
- Created X+ RESTful API automated test suites, improving test efficiency by XX%+ via multi-threading and algorithmic optimization

Focus: Embedded system validation, test automation

Research Projects

Car Cabin Monitering: Driver's Action Recognition—skeleton-based

MSc Student Dissertation Project in NTU

- **Background:** Action recognition is one of the most important tasks in car cabin monitoring. Skeleton-based method is a new trending in Action Recognition area with fast inference speed. Thus, it's worth to explore stable skeleton-based models for driver's action recognition
- conduct research on action recognition methods, especially efficient models
- build prototype and benchmark model on public dataset
- test in real car cabin environment
- Gained proficiency in Python, Pytorch

Non-contact Intelligent Drug-Craving Evaluation System

Leader, Student Research and Training Program in SEU

- Applied theories in the fields such as artificial intelligence, micro-expression and sentiment analysis of speech
- Conducted theoretical feasibility analysis and proposed schemes for optimisation and allocation of resources
- Designed detection methods based on audios and videos and a non-contact intelligent evaluation system targeting users' drug-craving and mental health
- **Keywords:** Micro-expression recognition, Voice emotional signal processing
- Gained proficiency in C++, Python, MATLAB and other programming languages

Research on Feature Extraction Method of Active Target Echo in Reverberation Background

Undergraduate Dissertation in SEU

- **Abstract:**A numerical model of active sonar target echo is constructed based on multi-point echo theory, and the Marine reverberation is modeled and simulated based on Middleton statistical model In the process of the echo signal, the auto-regressive model pre-whitening method is used to suppress the reverberation interference, and the target velocity and scale characteristics are extracted from the echo signal according to the Doppler frequency shift principle and multi-point model
- **Keywords:**Anti-reverberation, Auto-regression model whitening, Doppler frequency shift, Matched filter, Variable sampling
- Gained proficiency in MATLAB

Extracurriculars

Excellence Prize **12/2018**

Of the 2nd SEU National Collegiate Financial Elite Contest and The 4th 'East Money' National Collegiate

Second-class Prize **11/2018**

Of the 16th SEU Challenging CEO Contest, School of Information Science and Engineering.

President of TEDxSEU **06/2020-06/2021**

Organised speeches themed on 'involution', film sharing meetings, TED mini camp and TED circle.

Volunteer of TEDxNTU **09/2022**