Zou Yuanben

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EDUCATION

National University of Singapore

Aug 2023 - Jan 2025

Computer Engineering Master

• GPA:4.30/5.0

Beijing University of Posts and Telecommunications

Sep 2019 - Jun 2023

Telecommunication Engineering with Management Bachelor

- Bachelor of Science (Engineering) with Honors, First Class
- GPA:3.46/4.0

WORK EXPERIENCE

Ultra-Wireless Pte Ltd Feb 2025 - Mar 2025

IC Algorithm Engineer Singapore

- Proficient in the IEEE 4a/z UWB standard, extensive experience in one-way and two-way ranging under the UWB standard.
- Independently developed the ranging verification process for the RM-RTL validation platform of next-generation chips, successfully passing all tests.
- · Skills: UWB, Ranging Algorithm, RM-RTL

Agency for Science, Technology and Research (A*STAR)

Aug 2024 - Jan 2025

Scientist Singapore

- Building a multi-domain privacy-preserving retrieval framework based on RAG, Knowledge Graph, and federated learning.
- Completed experiments on Shapley-based data valuation and assisted in the completion of the paper Domain Bridging: Enabling Adaptation without Peeking at Target Data.
- · Skills: Federated learning, RAG, LLM, Knowledge Graph

Duke-NUS Medical School

Nov 2023 - Jun 2024

Back-end Software Developer

Singapore

- Responsible for developing the full stack for the School's Integrated Teaching and Learning Platform based on Elentra System.
- · Skills: PHP, MySQL, Full-stack development

Sangfor Technologies Inc.

Apr 2023 - Jul 2023

Technical Operation Intern

China

- Executed terminal fingerprint collection and developed a new network telemetry platform, enhancing data collection and monitoring capabilities.
- Skills: Flask, Elasticsearch, Web development

PROJECT EXPERIENCE

Optimizing LLMs through Multi-Head Attention and Cognitive Neuroscience

Aug 2023 - May 2024

- Enhanced multi-head attention with trainable adapters, enabling dynamic dataset adaptation. Discovered consistent adapter
 distribution patterns and optimized attention allocation, achieving a 15% accuracy improvement in sentiment analysis.
- · Skills: Transformer Model, Adapter, Model Finetuning

Organization-Exclusive Vertical Search Engine

Jun 2021 - May 2022

- Led the development of a high-performance vertical search engine, optimizing search efficiency based on Elasticsearch.
- Skills: Web development, Algorithm Optimization

Major Skills

· Full-stack development, NLP, LLM, IC Algorithm .