ZHENYI SHEN

(+44) 07566802085 | zhenyi.shen@kcl.ac.uk | https://www.zhenyishen.com/

EDUCATION

King's College London **London, UK**

Ph.D. of Computer Science Research, Supervisor: Prof. Yulan He **2024.10–Present**

- Research Interests: Natural Language processing, LLM reasoning, LLM efficiency, Multimodal Learning

Imperial College London **London, UK**

Master of Engineering in Electrical and Electronic **10.2016–7.2020**

- Achieved First Class Honour (Dean's List 2016).

PUBLICATIONS

- **Zhenyi Shen**, Hanqi Yan, Linhai Zhang, Zhanghao Hu, Yali Du, Yulan He. "*CODI: Compressing Chain-of-Thought into Continuous Space via Self-Distillation*." Preprint.
- Hanqi Yan, Linhai Zhang, Jiazheng Li, **Zhenyi Shen**, Yulan He. "Position: LLMs Need a Bayesian Meta-Reasoning Framework for More Robust and Generalizable Reasoning." ICML 2025.
- Zhanghao Hu, Hanqi Yan, Qingling Zhu, **Zhenyi Shen**, Yulan He, Lin Gui. "*Beyond Prompting: An Efficient Embedding Framework for Open-Domain Question Answering*." ACL 2025.

WORK EXPERIENCES

iFLYTEK Co. Ltd. **12.2021–8.2024**

Speech Synthesis Researcher *Shanghai, China*

Developed high-quality speech synthesis models for low-resource Chinese dialects (e.g., Taiwanese Mandarin, Suzhou, Shanghai, and Southern Min), achieving MOS >4.0, and conducted in-depth research on a text-analysis module to enhance rhythm, intonation, and overall controllability in dialectal TTS systems.

Zhuofan Information Technology Co. Ltd. **8.2020–12.2021**

Computer Vision Engineer *Shanghai, China*

Developed and deployed computer vision solutions, including facial recognition, object detection, and classification, to enhance E-Government IT systems. Automated key administrative processes such as surveillance, customer registration, and license issuance, improving efficiency and reducing manual workload.

MediaTek Inc. **4.2019–10.2019**

Verification Engineer Intern, Supervisor: Dr. Dimitris Nalbantis *Kent, UK*

Completed the functional verification of MediaTek's next-gen commercial 5G cellular RFIC via unit testing and integration testing of all simulated modules.

RESEARCH EXPERIENCES

Temporally Coded Spiking Neural Networks **10.2019–6.2020**

Imperial College London, Supervisors: Professor Pier Luigi Dragotti and Dr. Vincent C.H. Leung *London, UK*

Conducted research on Spiking Neural Networks (SNNs). Designed a hybrid SNN architecture that seamlessly integrates temporally-coded and rate-coded modules via a converter, harnessing the advantages of both paradigms to enhance accuracy and efficiency on real-world neuromorphic datasets (N-MNIST, DVS-128).

Undergraduate Research Opportunity **6.2018–9.2018**

Imperial College London, Supervisors: Professor George A. Constantinides and Dr. James J. Davis *London, UK*

Engineered an FPGA-based device checker, capable of determining the failure frequency of on-chip device, testing up to an upper limit of 800MHz with negligible error margins.

SKILLS

- **Programming**: Proficient in Python (PyTorch, NumPy, HuggingFace Transformers), Bash, LATEX, Git
- **Languages**: Fluent in English (IELTS: 7.5), and native in Mandarin.