YINNAN ZHOU

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Education

University of Science and Technology of China   **Sept. 2023 – Jun. 2026**
M.Sc. in Computer Science & Technology, advised by Prof. Hao Zhou   *Hefei, China*

Soochow University   **Sept. 2019 – Jun. 2023**
B.Eng in Computer Science & Technology   *Suzhou, China*
- GPA: **3.90**/4, Average Score: **93.9**/100, Rank: **2**/158

Experience

Microsoft (Microsoft Research Asia)   **Nov. 2022 – Apr. 2023**
Research Intern, SRG/Heterogeneous Extreme Computing (HEX) Group, mentored by SR. RSR. Kun Li   *Beijing, China*
- Addressed the inefficiency of traditional DFT (Density Functional Theory) methods in quantum chemistry on GPUs by optimizing memory layout through **block constructors**, reducing memory requirements from $O(n^4)$ to $O(n^2)$.
- Developed a **graph compiler** to abstract computations into **directed acyclic graphs**, automating the generation of optimal computation paths. Implemented CUDA code, achieving a **10x** acceleration in computational performance.

Microsoft (Microsoft Software Technology Center Asia)   **Jul. 2022 – Oct. 2022**
Software Engineer Intern, M365/Data and analysis (DnA) Group, mentored by SR.SDE. Guo Yi   *Suzhou, China*
- Developed **Intelligent Diagnostic Tool** for Teams to **address inefficiencies** in troubleshooting real-time data processing pipelines and **reduce reliance on expert knowledge**, and integrated it with the **Microsoft Data Manager** UI system.
- Built a **data collection** module to integrate **multi-source** data across platforms, including logs, databases, internal records, and CFV. Implemented a **cross-validation diagnostic** algorithm, reducing troubleshooting time from **hours** to **minutes**, and supporting **root cause analysis** for 50+ event types and thousands of fields. Designed an **intelligent summary generation** module to parse and trace issues, providing comprehensive and detailed support for subsequent anomaly prevention.

Publications

SaTrack: LoS/NLoS State-Aware WiFi Indoor Tracking System   **Dec. 2024**
IEEE International Conference on Sensing, Communication, and Networking (**SECON 2024**) [**CCF-B**]   *Phoenix, USA*
- Optimized the EM-based path decomposition algorithm by leveraging the diversity of **multi-antenna reference** signals to enhance path estimation accuracy.
- Applied DBSCAN for dual-domain path selection in both **spatial and temporal** domains, addressing performance degradation in WiFi indoor positioning under **non-line-of-sight** scenarios.
- Achieved a median tracking error of **0.64m** in complex environments, significantly outperforming existing solutions.

Competitions

Collegiate Computer Systems & Programming Contest (CCSP) | *Bronze Medal*   **Oct. 2020**
LanQiao Cup Algorithm Competition (C++ & Python) | *Provincial First Prize & National Excellence Award*   **Jun. 2022**
China Undergraduate Mathematical Contest in Modeling | *Provincial First Prize*   **Nov. 2021**
Mathematical Contest In Modeling | *Meritorious Winner*   **Mar. 2022**

Projects

Millimeter-wave based voiceprint & phonetic recognition system   **Feb. 2025**
- Developed a non-contact sensing system using millimeter-wave radar to capture **laryngeal vibration signals**, with subsequent **feature extraction** and **noise suppression** processing.
- Implemented **neural network** architectures for pattern recognition, achieving 96% accuracy on 46-class voiceprint identification and 98% accuracy on 48-class phonetic symbol recognition

Simple language compiler based on C++   **Sept. 2021**
- Implemented **lexical analysis, syntax analysis, semantic analysis**.
- Reading **character stream** from file, then converting it into **grammar tree** by top-down method according to grammar rules, then converting it into **assembly code** file by recursively descending attribute translation, finally reading assembly code by **simulator** based on stack and executing it.

Leadership & Extracurricular

Student Association for Science and Technology   **Aug. 2020 – Sept. 2021**
President   *School of Computer Science & Technology, Soochow University*
- Managed all departments & Organized meetings & Reached business cooperation with **LeetCode**.

Graduate Student Union   **Aug. 2024 – Sept. 2025**
Minister of Publicity Department   *School of Computer Science & Technology, University of Science and Technology of China*
- Edited and reviewed official posts & Hosted school events & Photographed event visuals for promotional use.

Honors & Awards

Top Prize of Academic Excellence (2%), First Prize of Research and Innovation (5%), Zhengxiong Scholarship (2%), Merit Student, Excellent Graduation Thesis, Outstanding Graduate Award