# YAO XIAO

(+86) 186-2182-3612 | ■ yaoxiao@g.harvard.edu | 🏠 charlie-xiao.github.io | 🗘 Charlie-XIAO | 🛅 yao-xiao-200073244

#### **EDUCATION**

#### Harvard University | Master of Science | Computational Science and Engineering

2024.09 - 2026.05 (expected)

• GPA: 3.92/4.00, including: Computer Networks, HPC, Data Systems, Distributed Systems (MIT), etc.

New York University | Bachelor of Science | Honors Mathematics | Computer Science | Shanghai | New York | 2020.09 – 2024.05

- Honors Mathematics GPA: 4.00/4.00, including: Linear Algebra, Math Modeling, Probability Theory, Numerical Analysis, etc.
- Computer Science GPA: 3.97/4.00, including: Data Structures, Algorithms, Operating Systems, Software Engineering, etc.

#### **PUBLICATIONS**

Authors with  $^\dagger$  are sorted by  $\alpha\text{-}\beta$  order, others are sorted by contribution

- [1] Yuejie Wang, Qiutong Men, **Yao Xiao**, Yongting Chen, and Guyue Liu. 2024. ConfMask: Enabling Privacy-Preserving Configuration Sharing via Anonymization. In *Proceedings of the ACM SIGCOMM 2024 Conference (ACM SIGCOMM'24)*. Association for Computing Machinery, New York, NY, USA, 465–483. doi:10.1145/3651890.3672217
- [2] Shengbin Yue, Shujun Liu, Yuxuan Zhou, Chenchen Shen, Siyuan Wang, **Yao Xiao**, Bingxuan Li, Yun Song, Xiaoyu Shen, Wei Chen, Xuanjing Huang, and Zhongyu Wei. 2024. LawLLM: Intelligent Legal System with Legal Reasoning and Verifiable Retrieval. In 29th International Conference on Database Systems for Advanced Applications (DASFAA'24). doi:10.1007/978-981-97-5569-1\_19

#### TEACHING EXPERIENCE

- Computer Networks, COMPSCI.1450, Harvard School of Engineering and Applied Sciences, Teaching Fellow, Spring 2025
- Linear Algebra, MATH-SHU.0140, NYU Shanghai, Learning Assistant, Spring 2024
- Calculus II, MATH-SHU.0131, NYU Shanghai, Learning Assistant, Fall 2021, Fall 2023
- Operating Systems, CSCI-UA.0202, NYU Courant Institute, Teaching Assistant, Spring 2023

#### **WORKING EXPERIENCE**

#### **Google** | Software Engineering Intern

2025.06 - 2025.08

SKILLS: Java, Dart, Flutter, Android/Pixel, Binder IPC, Protobuf, MCP, on-device AI agents

- Integrated Model Context Protocol (MCP) into Android, allowing apps to expose MCP services and participate in agentic interactions.
- $\bullet \ \ Built \ an \ And \ roid \ MCP \ proxy \ service \ that \ mediates \ communication \ of \ MCP \ clients \ and \ servers, \ enabling \ fine-grained \ security \ controls.$
- Designed APIs for agentic AI apps to seamlessly discover and securely connect to on-device and remote MCP servers through the proxy.
- $\bullet \ \ Showcased\ an\ MCP\ host\ utilizing\ multiple\ apps\ (map,\ calendar,\ email,\ etc.)\ for\ multi-step\ travel\ planning\ with\ minimal\ user\ intervention.$

# DISC Lab, Fudan University | Lab Assistant | DASFAA'24 | GitHub

2023.05 - 2023.08

SKILLS: Python, PyTorch, HuggingFace, LLM, instruction tuning, augmented retrieval

- Led the construction of 403K legal knowledge instruction data, curated with legal syllogism prompting for higher expertise.
- Fine-tuned DISC-LawLLM, an LLM specialized for legal services based on Baichuan 13B Chat, outperforming GPT-3.5 Turbo.
- Participated in designing a verifiable knowledge retrieval module to inject external knowledge and enhance output actuality.
- Drove the implementation of a comprehensive benchmark for legal systems evaluation in both objective and subjective dimensions.

### RESEARCH EXPERIENCE

# Privacy-Preserving Network Configuration Sharing via Anonymization | SIGCOMM'24 | GitHub

2022.10 - 2024.08

ADVISOR: Professor Guyue Liu, guyue.liu@gmail.com

- Proposed the ConfMask framework to systematically anonymize topology and routing information in network configurations.
- Designed the anonymization algorithm for different protocols that mitigated deanonymization risks yet preserved important utilities.
- Managed to rigorously prove the route equivalence and routing utility preservation properties of the anonymization framework.
- Led the implementation of the end-to-end network configuration anonymization system and the artifact evaluation.

# **HONORS AND AWARDS**

- [1] Magma cum laude, NYU Shanghai, 2024
- [2] Level I Certification, CRLA's International Tutor Training Program, 2024
- [3] **Dean's List of Academic Year**, NYU Shanghai, 2020 2021, 2021 2022, 2022 2023

#### **SKILLS**

**Programming:** Python, Rust, C/C++, Go, JS/TS, Java, Dart, SQL, MATLAB, Julia; **Web & App Frameworks:** React, Tauri, Flutter, Android; **Database:** SQLite, MongoDB; **Cloud:** Google Cloud Platform, AWS; **HPC:** CUDA, SIMD/AVX, OpenMP/MPI; **DevOps:** Docker, Kubernetes, GitHub Actions, Ansible