Kangheng Liu

1808 N Quinn St, Arlington, State 22209
202-725-1513 kl1099@georgetown.edu linkedin.com/in/kangheng-liu github.com/kanghengliu

Education

Georgetown University **Sep. 2023 – May. 2025**
Master of Science in Data Science and Analytics *Washinton D.C., USA*

Lanzhou University **Sep. 2019 – Jun. 2023**
Bachelor of Science in Data Science *Lanzhou, China*

Experience

School of Data Science and Analytics, Georgetown University **Sept. 2023 – Jan. 2024**
Teaching Assistant *Washington D.C., USA*

- Instructed and mentored 50 students in Neural Network and Deep Learning curriculum.

School of Information Science and Engineering, Lanzhou University **Jul. 2022 – May. 2023**
System Architect *Lanzhou, China*

- Set up and optimized data commnuication by 10% with Kubernetes clustering containerized applications management system with Ceph distributed storage for university net-based services, hosted various Lanzhou University web portals. Significantly reduced cost ($\sim$ 20%) for hosting hardware and system maintanance while improving performance for scaling up applications and data trafficking.

Huawei Inc. & Lanzhou University **Jul. 2021 – Aug. 2021**
Teaching Assistant *Lanzhou, China*

- Deployed extensive Linux based Data Mining development environment with OpenEuler® operating system.
- Researched and optimized OpenGauss® relational database system by Huawei Technologies Co., Ltd regarding the ARM instruction set CPU architecture.
- Adopted Mindspore® by Huawei Technologies Co., Ltd automatic differentiation technique, code transformation techniques for deep learning.
- Implemented OpenEuler® by Huawei Technologies Co., Ltd operating system for server and cloud environments, introduced its superiority for automatic performance tuning.

Projects

Intelligent Campus Oriented Emotion Recognition & **Depression Assistance System** |
Python, SQL, NLP **Mar. 2022 – Nov. 2022**

- Gathered data (information collection, text semantic analysis and classification), cleaned, and pipelined to application back-end database.
- Wrote handler on MySQL database with SQLalchemy extension library.
- Performed semantic analysis with Natural Language Processing.

Design and Implementation of Telemedicine System |
Software Development Cycle Management, Data flow design, Database Architecture design **Mar. 2021**

- Evaluated the domestic and international developmental context as a precursor to the research background analysis.
- Designed the architectural framework for implementing a telemedicine system.

Another File Management System: Stardust | *C, Python, Unity3D* **Sept 2019**

- Designed a classification/recommendation system for accessing recent files.
- Implemented python GUI interface for file manager with PyQt.

macOS OpenCore Installation on Non-supported Hardware |
C++, bash, ACPI, AppleScript **Sept 2019 – Dec 2022**

- Installed macOS on spoofed non-supported HP laptop, written Kernel patches for motherboard ACPI table.
- Improved touchpad functionality within the VoodooSMBus/VoodooRMI driver repository on GitHub, elevating its performance.
- Wrote ACPI patches for optimizing hardware performance, extending battery life by 40% while maintaining same CPU performance.

Technical Skills

Languages: Python, R, HTML/CSS, C, SQL, C++, ACPI Source Language
Developer Tools: VS Code, Huawei Cloud Platform, Xcode
Technologies/Frameworks: Linux, GitHub, Gitee, Quarto, LaTeX, macOS Kernel Extension