YILIU (AIDEN) LI

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EDUCATION

UNIVERSITY COLLEGE LONDON

BSc Computer Science

EXPERIENCES

Research Assistant

Tsinghua University Pervasive HCI Group (Tsinghua PI Lab)

- Conducting research in **LLM Ideation** and **LLM Review**, by developing a GUI LLM platform, and to enable low-cost collection, organization and synthesization of scientific facets.
- Designing and developing cross-platform mobile webapp for **online AI hemifacial spasm analysis** via facial analysis.

AI Product Management Internship

Ponder AI (ResearchFlow)

- Actively supporting initiatives such as Keyboard Shortcuts, Mind Map View, and Accuracy Optimization.
- Proposed, designed, and launched multi-functional AI Chatbox that supports in-contextual quotation.
- Assisted in structuring **product roadmaps**, gathering **user feedback**, and optimizing AI functionalities to enhance usability and user engagement.
- Proposed and contributed to research in factuality consistency of LLM generated contexts.

Research Assistant

UCL Computer Science Multi-Sensory Devices (MSD) Group

- Developed and deployed Virtual Reality (VR) environment, enhanced experience in fabric touch perception.
 - Contributed to research on kinaesthetic illusion through experimental support, and literature review.
- Supported in preparing presentations and research summaries about **pseudo-haptics**.
- Supervisor: Prof. Marianna Obrist

Teaching Assistant

UCL ENGF0034 Design and Professional Skills I (Computer Science)

- Assisted in delivering course content and hands-on lab session for undergraduate Computer Science students.
- Assisted students with **Python** coding, AI game autoplayer development, and debugging techniques.
- Provided support in understanding internet protocols and real-world networking applications.
- Module Leader: Prof. Martin Benning

PROJECTS

SightLinks – UCL IXN Project

- Collaboration with UCL GDI Hub, Wheelchair Alliance, and Soundscape, to enhance accessibility solutions for disabled individuals.
- Trained machine learning model based on **MobileNetV3**, **YOLO11**, and utilized georeference techniques for precise zebra crossing detection and geolocation from satellite imagery, with a precision of >85%.

- Project Page: <u>http://students.cs.ucl.ac.uk/2024/group15</u>

Bioreactor Development

- Designed a bioreactor for the manufacture and storage of BCG vaccine used in Uganda.
- Developed a web dashboard for real-time monitoring of the bioreactor using **React** and built a Wi-Fi IoT platform by integrating **ESP32**, **STM32**, and **Arduino**.

CUDA Accelerated SDOT Kernal Development at UCR Supercomputing Lab 06/2023 – 08/2023

- A breakthrough was achieved in creating an innovative algorithm for computing SDOT by optimizing **GPU**accelerated kernels, enhancing efficiency, and minimizing data movement through **CUDA** programming and innovative techniques.
- Source code: https://github.com/yiliu-li/Optimized-Cuda-SDOT-Kernel-on-NVIDIA-Turing-GPUs
- Supervisor: Prof. Zizhong (Jeffery) Chen

SKILLS

Programming Languages

- Python, C, C++, C#, Java, JavaScript, Haskell, SQL, Pascal
- **Development Tools**
 - CUDA, Arduino, React, Node.js, Bash, Git
 - PyTorch, TensorFlow, NumPy, Matplotlib, Pandas

09/2023 - 07/2026

05/2025 – Present

02/2025 - Present

08/2024 – Present

09/2024 - 01/2025

10/2024 - 03/2025

10/2023 - 01/2024