

HUANG SONGLIN

✉ huangs0@connect.hku.hk in linkedin.com/in/huang-songlin 📞 68567185 🌐 huangs0.github.io

EDUCATION

Master of Philosophy (Computer Science), the University of Hong Kong Sep 2023 - Aug 2025
Supervisor: Prof. Wu Chenshu (primary) and Prof. Wu Chuan (secondary)

Bachelor of Engineering (Computer Science), the University of Hong Kong Sep 2019 - Jun 2023
Major: Computer Science, **Minor:** Finance
CGPA: 3.75 / 4.30, **First Class Honors Graduate**

PUBLICATIONS

1. **Songlin Huang**, Chenshu Wu. Neutrino: Fine-grained GPU Kernel Profiling via Programmable Probing. To appear in the *19th USENIX Symposium on Operating Systems Design and Implementation (OSDI '25)*.

INTERNSHIP

Research Intern Jun 2023 - Aug 2023
miHoYo, Shanghai

- Improve performance and reduce latency of eye tracking module in high-quality digital avatar streaming pipelines.
- Gain experience in implementing, troubleshooting and debugging real-time system, and strong programming skills.

Machine Learning Platform Architect Intern Jun 2022 - Sep 2022
NVIDIA, Shanghai

- Improve the trustability of Machine Learning as a Service (MLaaS) platform via cluster and pod co-design.
- Gain experience in industry-level machine learning pipelines and experience to work in multi-functional teams.
- Obtain solid software engineering fundamentals, prototyping skills and collaborative skills in a global team.

RESEARCH

Research Assistant Oct 2022 - Apr 2023
Department of Computer Science, the University of Hong Kong
Supervisor: Dr. Wu Chenshu

- Design and implement a live demo on iOS by CoreML and Web by tfjs for real-time human computer interaction.
- Gain experience on building and test efficient machine learning algorithms on resource-constrained platforms.

TEACHING

Teaching Assistant - COMP3230 Principle of Operating Systems Fall 2023 & Fall 2024
Department of Computer Science, the University of Hong Kong
Instructor: Dr. Wu Chenshu

- Prepare and conduct tutorial session for concurrency, multi-threading and mutual exclusion for synchronisation
- Prepare and grade assignments on multi-threading (pthread, mutex) and multi-processing (fork/wait, IPC).

HONORS AND AWARDS

- **Postgraduate Scholarship**, Department of Computer Science, the University of Hong Kong, 2023
- **Dean's Honors List**, Faculty of Engineering, the University of Hong Kong, 2020, 2021, 2022

SKILLS

Parallel Computing: PyTorch/Triton/CUTLASS, Parallel Assemblies (PTX/SASS/GCNAsm), Profiling (Nsight).
System: GNU/Linux, POSIX, Observability (eBPF, ptrace), Virtualization (Container, WASM).
Network: Protocols, Congestion Control, Collectives (MPI/NCCL), GPU Networking (NvLink, NCCL).
Others: Proficient in Python, C, Assembly (x86/ARM...). Comfortable to work in CLI. Fluent in English.