HUANG SONGLIN

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EDUCATION

Master of Philosophy (Computer Science), the University of Hong Kong   Sep 2023 - Jun 2025
Primary Supervisor: Dr. Wu Chenshu
Secondary Supervisor: Prof. Wu Chuan

Bachelor of Engineering (Computer Science), the University of Hong Kong   Sep 2019 - Jun 2023
Major: Computer Science, **Minor**: Mathematics
Courses: Natural Language Processing (A+), Computer Vision, Optimization, Probability & Statistics
CGPA 3.75, Dean's Honors List 2020-2021 & 2021-2022

INDUSTRIAL EXPERIENCE

Machine Learning Platform Architect Intern   Jun 2022 - Aug 2022
NVIDIA
- Improve the transparency and trustability of Machine Learning as a Service (MLaaS) system by explainable AI.
- Gain experience in industry-level machine learning pipelines and experience to work in fast-paced multi-functional teams with product as primary goal while exploring innovative ideas to improve customer experience.
- Obtain software engineering fundamentals, excellent programming and prototyping skills, and collaborative skills.

TALKS

Young Scholar TechTalk - HOF2   May 23, 2023
Faculty of Engineering, the University of Hong Kong
- First undergraduate presenter in HKU TechTalk for PhD: https://innowings.engg.hku.hk/hand-over-face-gesture/
- Present Two-Finger Hand-Over-Face (HOF2), a novel, natural and robust input modality with high availability.
- Present a real-time demo running locally on iOs and Web (https://hof2.framer.website) based by Computer Vision.

RESEARCH EXPERIENCE

Research Assistant   Oct 2022 - Apr 2023
Department of Computer Science, the University of Hong Kong
Supervisor: Dr. Wu Chenshu
- Design and implement the live demo on iOs by CoreML and Web by Tensorflow.js with respect for user privacy.
- Propose and improve HOF2 in product focused manner based on user feedback from HCI-style user study.
- Acquire in-depth expertise in computer vision (CV) and strong presentation skills to large audience.
- Gain experience on building extraordinary product with innovative ideas that can improve the user experiences, and the experience in developing algorithms on resource constrained platforms with high efficiency.

HKU CS Summer Research Internship   Jul 2021 - Aug 2021
Department of Computer Science, the University of Hong Kong
Supervisor: Professor Wu Chuan
- For large-scale Graph Neural Network (GNN) inference, propose an embedded online acceleration framework based on the locality of message-passing framework, finally increased the inference speed by 3x.
- Acquire knowledge on ML accleration, and practices in conducting Machine Learning experiments and test.

SKILLS

Natural Language Processing: Natural Language Generation, Parsing and Grammars, Sentiment Analysis
Machine Learning: Model Deployment, Explainable AI, ML Acceleration, Hyper-parameter tuning
Deep Learning: CV, NLP, GNN, Few-shot learning, with PyTorch and Tensorflow.
Mathematics: Optimization, Linear Algebra, Multivariable Calculus, Probability & Statistics
Software Engineering: Linux/Unix, Version Control, Algorithm, Agile with Scrum, Python, C++, Swift