

Wu Chi Hsuan

+886 909604556 | wuchihsuan.working@gmail.com | [Personal Website](#) | [Github](#)

EDUCATION

University of Texas at Austin

M.S. Computer Science

Incoming
United States

Hong Kong University of Science and Technology

B.S. Data Science and Technology and B.S. Computer Science, First Class Honors

Sep. 2019 - June 2023

Hong Kong

- GPA: 3.90/4.30 Major GPA: 3.98/4.30
- Exchanged to **École Polytechnique Fédérale de Lausanne** with grade 5.67/6.00
- Award: Academic Achievement Medal (**Top 2%** of all graduates), 6 times Dean's List Award (GPA higher than 3.7), HKSAR Government Reaching Out Award, Continuing Undergraduate Scholarship

RESEARCH EXPERIENCE

3D Human Mesh Reconstruction from Monocular Videos

Research Assistant, Multimedia Technologies Laboratory

Nov. 2023 – Mar. 2023

Academia Sinica, Taiwan

- Designed transformer structure with dilated attention to enhance pose estimation under rapid pose change.
- Designed loss to improve prediction for limb joints with large uncertainty.

Multi-Modal Student Engagement Detection in Video Streaming [\[arxiv\]](#)

Final Year Thesis, Vision and System Design Lab

Sep. 2022 – Sep. 2023

HKUST, Hong Kong

- Devised a multi-modal backbone that interacts visual, audio, and speech features to classify student engagement.
- Proposed ranking-based loss using contrastive learning to tackle intra-class variance. Improve accuracy by **5%**.
- First-author paper accepted by **CVPR ABAW Workshop**. Pending **US Utility Patent**.

Interpretable Models for Scoring Bias in Documents [\[arxiv\]](#)

Research Assistant, Information and Network Dynamics Lab

Feb. 2022 – Feb. 2023

EPFL, Switzerland

- Proposed interpretable model to classify biased articles on Wikipedia. Enhanced classification accuracy by **10%**.
- Designed model structure that can contextually score term subjectivity across different document domains.
- Second-author paper accepted by **EACL (The European Chapter of the ACL)** main conference.

SELECTED PROJECT

Day Night Transformation to Improve Feature Matching [\[pdf\]](#)[\[code\]](#)

Computer Vision Project

Sep. 2021 – Dec. 2021

HKUST, Hong Kong

- Developed CycleGAN model to transform illumination and improve feature matching of day-night images pair.
- Designed loss to improve image quality and training stability. Increased high-confidence feature matching by **13%**.

Super-Resolution on Computer Texts [\[code\]](#)

Undergraduate Researcher Opportunity Program

June 2021 - Sep. 2021

HKUST, Hong Kong

- Designed a two-stream model to enhance colorization and text boundary on images with blurry texts.
- Applied Gradient-Prior Loss to improve boundary clarity and reduced MSE Loss by **8.4%**.

Human Face Generation with GAN

Undergraduate Researcher Opportunity Program

Nov. 2020 - Feb. 2021

HKUST, Hong Kong

- Utilized StyleGAN and pretrained segmentation models to perform face morphing and interchange facial organs.
- Designed algorithm-based method to perform natural facial organ interchanging on images.

OTHER EXPERIENCE

HKUST Science School - Peer Mentor

Sep. 2021 - June 2022

- Conducted math tutorials and guided 20 incoming students through course selection and major decisions.

Path Advisor (In-campus Map) - Devops

Sep. 2021 - Dec. 2021

- Implemented CI/CD pipeline with gitactions for campus map. Collaborated with a 10-member software team.

ExamPal - Startup Team Member

Nov. 2020 - Nov. 2021

- Led online learning platform prototype development and showcased ideas at various entrepreneurial events.
- Selected and **funded by Hong Kong Science and Technology Park Incubation Programme**.