Hoe Jiun Tian

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Education

Nanyang Technological University, PhD in School of Electrical and Electronic

Aug 2022 - present

- Engineering Singapore
- Computer Vision, Image Generation
- Under the supervision of <u>Prof Tan Yap-Peng</u> and <u>Prof Jiang Xudong</u>.
- One work on image generation was accepted in CVPR 2024 and one are under reviewing.

Universiti Malaya, BCompSc in Artificial Intelligence – Kuala Lumpur, Malaysia

Sept 2018 - Feb 2022

- Computer Vision, Deep Hashing based Image Retrieval
- CGPA: 3.993/4.000
- Final year project on deep hashing was accepted in NeurIPS 2021 and BMVC 2023.

Experience

AI Engineer Intern, MoneyLion Malaysia Sdn Bhd – Kuala Lumpur, Malaysia Mar 2019 – Jan 2021 Maintained and optimized an AI rule-based decision engine and model deployments using Java (Spring, Project Loom), Python (Flask, PyTorch), and Kubernetes.

Publications

InteractEdit: Zero-Shot Editing of Human-Object Interactions in Images

Mar 2025

Jiun Tian Hoe, Weipeng Hu, Wei Zhou, Chao Xie, Ziwei Wang, Chee Seng Chan, Xudong Jiang, Yap-Peng Tan arXiv preprint (under review)

InteractDiffusion: Interaction Control in Text-to-Image Diffusion Models

June 2024

Jiun Tian Hoe, Xudong Jiang, Chee Seng Chan, Yap-Peng Tan, Weipeng Hu

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)

Residual Quotient Learning for Zero-Reference Low-Light Image Enhancement

Dec 2024

Chao Xie, Linfeng Fei, Huanjie Tao, Yaocong Hu, Wei Zhou, **Jiun Tian Hoe**, Weipeng Hu, Yap-Peng Tan IEEE Transactions on Image Processing

Unsupervised Hashing with Similarity Distribution Calibration

Nov 2023

Kam Woh Ng, Xiatian Zhu, **Jiun Tian Hoe**, Chee Seng Chan, Tianyu Zhang, Yi-Zhe Song, Tao Xiang British Machine Vision Conference (BMVC)

One Loss for All: Deep Hashing with a Single Cosine Similarity based Learning Objective

Dec 2021

Jiun Tian Hoe, Kam Woh Ng, Tianyu Zhang, Chee Seng Chan, Yi-Zhe Song, Tao Xiang Advances in Neural Information Processing Systems (NeurIPS)

Services

Teaching Assistant - IE0005 Intro. to Data Science and AI, NTU	2025 – 2025
Teaching Assistant - IM2073 Intro. to Design & Project , NTU Teach student on Unity, Java, Web, and Android Programming	2025 – 2025
Teaching Assistant - EE2073 Intro. to EEE Design & Project , NTU Teach student to build a Automatic Volume Control Audio Amplifier System	2024 – 2024
Teaching Assistant - IE4001 Software Engineering, NTU	2024 - 2024
Teaching Assistant - IE1005 Computational Thinking to Programming, NTU	2023 - 2024
Teaching Assistant - WIA1002 Data Structure, Universiti Malaya	2019 – 2021

Teaching Assistant - WIX1002 Fundamental of Programming, Universiti Malaya

Reviewer of Conference, CVPR, ICCV, ECCV, BMVC

Skills

Programming: Python, Java, C/C++/C#, Bash, HTML5/CSS3/Javascript **Development Framework:** ReactJS, Flask, Unity3D, Spring, Kubernetes

Deep Learning Framework: PyTorch, Tensorflow, Accelerate

Awards

Research Scholarship: Nanyang Technological University

Book Prize: University Malaya

Interests

Computer vision, image generation and editing, human-object interaction, diffusion models

Languages

Chinese: Native English: Fluent Malay: Fluent Hokkien: Native

References

References available upon request