

TZE HO ELDEN TSE

<https://eldentse.github.io>

Intelligent Robotics Laboratory, School of Computer Science, University of Birmingham

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EDUCATION

University of Birmingham, United Kingdom

Feb. 2020 - present

Ph.D. student in Computer Science

Supervised by Dr. Hyung Jin Chang, Dr. Kwang In Kim and Prof. Aleš Leonardis

Research area: Graph Neural Networks in Computer Vision

Cranfield University, United Kingdom

Sept. 2018 - Jun. 2020

PGDip in Engineering Competence

Part of BAE Systems graduate scheme

University of Oxford, United Kingdom

Oct. 2014 - Jul. 2018

M.Eng in Engineering Science (First Class Honours, 78%)

Specialised in Information Engineering

WORK EXPERIENCE

University of Birmingham, United Kingdom

Mar. 2022 - present

Research Assistant

- Collaboration with Dongguk University Machine Learning Lab.
- Project title: “*Graph Neural Network for Visual Recognition and Representation*”
In this research, we are developing a deep semantic graph neural network based knowledge representation and learning framework for high-level vision tasks, such as hand-object pose estimation and representation.

BAE Systems, United Kingdom

Sept. 2018 - Jul. 2021

PLD Engineer

- Hardware sensor design for Eurofighter Typhoon (6 months)
- PLD verification for F-16 head-up-display (6months)
- AI R&D with Innovation and Growth Team (6 months)
- PLD verification for flight control computer (16 months)

PUBLICATIONS

Collaborative Learning for Hand and Object Reconstruction with Attention-guided Graph Convolution

Tze Ho Elden Tse, Kwang In Kim, Aleš Leonardis, Hyung Jin Chang

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)

TP-AE: Temporally Primed 6D Object Pose Tracking with Auto-Encoders

Linfang Zheng, Aleš Leonardis, Tze Ho Elden Tse, Nora Horanyi, Wei Zhang, Hua Chen, Hyung Jin Chang

The 39th IEEE Conference on Robotics and Automation (ICRA 2022)

No Need to Scream: Robust Sound-based Speaker Localisation in Challenging Scenarios

Tze Ho Elden Tse, D. De Martini and L. Marchegiani

The 11th International Conference on Social Robotics (ICSR 2019)

TEACHING

Teaching Assistant

[02/2022-07/2022] Computer Vision and Imaging

[09/2021-07/2022] MSc Computer Science project

[09/2021-01/2022] Programming for Data Science and AI

ACADEMIC SERVICES

Reviewer ICML 2022; CVPR 2022, 2021; ICCV 2021; BMVC 2021; NeurIPS 2020

AWARDS

2014-2018 College Scholarship for Outstanding Performance in Engineering Exams

TECHNICAL STRENGTHS

Programming Languages Python, SystemVerilog, VHDL, MATLAB

Libraries PyTorch, PyTorch Geometric, OpenCV