Aaron Low Weng Soon

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Education

Imperial College London **2018 - 2019**
PhD in Machine Learning and Computer Vision (discontinued)

Supervisors: Kim Tae-Kyun and Loy Chen Change

Research area: 3D Pose Estimation

Imperial College London **2014 - 2018**
Electrical and Electronic Engineering MEng

First Class Honours

Dean's List (top 10% of class) Year 2

Selected modules: Linear Algebra • Probability and Stochastic Processes • Machine Learning • Computer Vision • Algorithms and Complexity • Parallel Computing • Optimisation

Thesis: Depth to Colour Translation for 3D Hand Pose Estimation From Monocular RGB With Generative Adversarial Networks

HELP Academy **2013 - 2014**
Edexcel A-Levels

4 A* Chemistry • Physics • Mathematics • Further Mathematics

Work Experience

Motional **2020 - Present**
Research Engineer (Sensor Calibration)

- Research and development of solutions for sensor (cameras, LIDARs, radars, IMU) calibration and validation for autonomous vehicles
- Developed tools in C++ to enable users to visually inspect sensor calibration and run calibration algorithms
- Developed deep learning infrastructure with PyTorch as well as training and evaluating models
- Implemented data pipelines for analyzing metrics, collecting deep learning datasets leveraging SQL databases and cloud solutions

Aptiv **2020**
Autonomous Vehicle Intern (Sensor Calibration)

- Implemented deep learning based methods for sensor (cameras, LIDARs) calibration for autonomous vehicles based on RegNet
- Processed and curated datasets to train and evaluate deep learning models
- Deployed models into production with TensorRT

Materialise **2016**
Software Engineer Intern

- Designed and developed a Microsoft Paint inspired application
- Contributed to the development of 3D modelling software

Accenture **2015**
Solution Architect Intern

Development of front end retail system dealing mainly with system analysis and testing

Projects

Without Abandonware **2021**
Game Developer

Entry to the Game Off 2021 game jam A 2D platformer written in Unity with C#

Autonomous Snack Delivery Android (ASDA) **2017**
Development of Robot Navigation

Autonomous robot that is capable of manoeuvring a building and taking an elevator to obtain and deliver snacks

Emocoaster **2017**
Game Developer

Runner-Up ("Best Game") Emotion matching game built using Microsoft Cognitive Services

NeuroSpell **2016**
Python Developer

Low-cost brain computing interface that allows motor impaired people to type by looking at an on-screen keyboard

ParkWare **2016**
Web Developer

Prize Winner ("Best use of Amazon Web Services") Parking space detection web service using machine learning to detect cars in parking lots

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Technologies

Programming: Python • C++ • C# • SQL

Web Development: HTML • CSS • JavaScript

Deep Learning: PyTorch • TensorFlow • Keras • Pandas

Other tools/frameworks: Jenkins • lxc • ROS • docker • Bash • git • Unity

Operating Systems: Windows • Linux

Teaching

HELP University **2019 - 2020**
Lecturer, Faculty of Computing and Digital Technology

- Lectured introductory programming
- Presented deep learning tutorials to both staff and students

Imperial College London **2016**
Undergraduate Teaching Assistant, Introduction to Computer Architecture

Taught ARM assembly during programming tutorials

Imperial College London Game Development Society **2015 - 2018**
Co-founder and Secretary

Provided free tutorials on game development using C# and Unity

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Learning

Data Science Nanodegree (Udacity) **2021**
Dog Breed Classifier Project Article

Deep Learning Specialization by Andrew Ng (Coursera) **2018**

Additional

Languages: English (Native) • Malay (limited working)
