ABDUL HAZIM

"Learn and Innovate for the betterment of the World"

PERSONAL INFORMATION

Batu Caves, Selangor

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phone (MY) +60 (0)10 463 8306

WORK EXPERIENCE

2016 2nd Year Project-CropBase Gap Filler

Crops for the Future

Developed a conceptual database gap filler framework and implemented some helper programs for the database of underutilised crops.

Reference: K R Selvaraj · kr.selvaraj@nottingham.edu.my

EDUCATION

2018-Present Universiti Malaya

Master of Computer Science

Applied Computing (Aritificial Intelligence) · Faculty: Computer Science and Information Technology

Curriculum:

- Computer Vision and Image Processing
- · Robotics and Intelligent agents
- Research Methods and Dissertation

2017-2018 University of Nottingham

Bachelor of Science

Percentage: 70% · Computer Science with Aritificial Intelligence · School:

Computer Science

References: Assoc. Prof. Gail Hopkins & Assist. Prof. Ender Özcan

Curriculum:

- Machine Learning
- Search and Optimisation
- Computer Vision
- Designing Intelligent agents
- Computer Security
- Professional Ethics in Computing

2015-2017 The University of Nottingham Malaysia Campus

Bachelor of Science

Percentage: 77% · Computer Science with Artificial Intelligence · School:

Computer Science

References: Assist. Prof. K R Selvaraj & Assoc. Prof. Tomas Maul

Curriculum:

- C, Java and Haskell
- Operating Systems and Concurrency
- Software Engineering Methodologies
- Databases and Interfaces (MySQL, PHP, JavaScript, HTML, CSS)
- Artificial Intelligence (Search, Optimisation, Scheduling)
- Human Computer Interaction

RECENT NOTABLE PROJECTS

Nov 2018 'Bokeh' using Stereo Vision

Stereo Vision Application

Produce the highly sought after shallow depth of field effect (Bokeh) on photos using computer vision approach with binocular stereo vision. The additional depth information available in a stereo image could produce higher quality effects. Its' an effect widely implemented in today's cameras including smartphones but there is significant gap in publicly available academic documentation. Essentially, the depth map is produced using various available techniques including local and global methods. This is to explore the pros and cons of each method.

April 2018 Comparisons of Stereo Correspondence Algorithms

Stereo Vision

Implement and visually inspect the disparity maps produced by different stereo correspondence algorithms. Algorithms include local and global methods to fully explore the processing time and quality of end-result. To start, simple block matching is used starting with Sum of Squared Differences (SSD) followed by the use of Feature Descriptors such as Gradients and Speeded Up Robust Features (SURF). The widely known Dynamic Programming approach is also implemented.

March 2018 Active vs Passive Coordination in Distributive Foraging Reflexive Multi-Agent System

Multi-Agent System

Active and Passive coordination methods are tested in a Multi-Agent System built from a previous project, Utility-Reflex Foraging Agent. Utility-Reflex Foraging Agent is a reflex agent with utility functions to allow it to make more informed decisions about its foraging tasks. It is seen that it performs better than a Simple Relfex Agent. Additionally, exploration techniques was also experimented to learn the most efficient method to spread out agents. These two elements will ensure competition among agents is minimised thus increasing the foraging efficiency.

SKILLS

Basic Python, Haskell, LATEX, Android

Intermediate MATLAB, C++, C, R, LAMP, Linux (Ubuntu/Debian), Stereo Vision, Machine Learning

Advanced JAVA, Computer Hardware and Support, Microsoft Windows

OTHER INFORMATION

2013 · Industrial Arts Award - Recognition by my secondary school for my efforts in representing the school in various innovation competitions

2013 · SPM Top Achiever Award - Sijil Pelajaran Malaysia is Malaysia's equivalent of the GCE O-Level standard

Languages English · Mothertongue

Malay · Advanced (speaking and writing)