

# Marcus Wong Yew Hon

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## Bio

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Graduate of MSc in Artificial Intelligence from Munster Technological University with Stamp 1G visa. With a passion for fields concerning computer vision and artificial intelligence, I am eager to utilize my skills for the good of any institution. Accomplished projects such as Augmented Reality assisted visual impairment aid for Master's research as well as indoor map reconstruction and navigation during the course of university, and I am willing to harness those skills acquired from those projects. I am very eager to learn and will not shy away from any new challenges. Proficient in Python, OpenCV, object detection, Tensorflow, Keras, Scikit, numpy and matplotlib.

Accrued industrial experience in agile based online banking solutions development for both mobile and web platforms for Malaysia's 2nd largest bank (CIMB bank) with demonstrated abilities in customer relationship skills.

## Education

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### Munster Technological University

MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE

GPA: First Class Honours, 79.3%

Cork, Ireland

September 2019 – October 2020

### Sunway University

BACHELOR'S DEGREE IN COMPUTER SCIENCE

GPA: 3.74

Subang Jaya, Malaysia

March 2016 – March 2019

### Sunway College

FOUNDATION IN SCIENCE

GPA: 3.77

Subang Jaya, Malaysia

March 2015 – March 2016

## Experience

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### Cyber Village Sdn Bhd

WEB APPLICATION DEVELOPER

- Continued involvement in the development and maintenance of CIMB Bank Singapore's web and mobile banking platforms
- Developed in-house APIs for use in projects by third party collaborators and users.
- Written scripts to be used for automation of common database operations.
- Participated in application and web platform deployment process using IBM WAS Console.
- Involved in front end development and back-end services linking for Tabung Haji Malaysia's web platform using Angular, Typescript, Node, HTML and SCSS.
- Worked on front end development for Life Insurance Association of Malaysia's MyCoverage service using Liferay CMS, HTML, Javascript and CSS.

Petaling Jaya, Malaysia

March 2019 – August 2019

### Cyber Village Sdn Bhd

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- Involved in mobile application and web development for CIMB Bank Singapore's mobile and web banking platforms using Javascript, Cordova, AngularJS, Java, JSP, Struts, Portlet and DB2 SQL
- Researched and implemented push notification services for mobile banking application using Google Cloud Messaging (GCM) service.
- Participated in UI/UX designing for aspects of mobile application interface.

Kuala Lumpur, Malaysia

December 2018 – March 2019

## Skills

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**Programming Languages:** Java, C#, Python, Javascript, HTML, CSS, Typescript, Scala

**Databases:** MySQL, MongoDB, IBM DB2

**Artificial Intelligence:** Machine Learning, Deep Learning, CNN, YOLO Object Detection, Tensorflow, Keras

**Libraries:** OpenCV, Pandas, Numpy, Scikit Learn, Unity, Matplotlib, Spark, Struts MVC, Portlet, Akka

**Framework/Tools:** Git, Gerrit, Jenkins, Docker, AngularJS, Angular 8, NodeJS, SOAP, REST, Jsp.NET

**Spoken Languages:** Fluent in 4 languages including English, Mandarin Chinese, Cantonese, Malay

## Projects

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### Stairs Detection and Step Segmentation Through Augmented Reality as Visual Impairment Aid

AS PART OF A RESEARCH INITIATIVE WITH NIMBUS RESEARCH CENTRE, CORK, IRELAND, AS WELL AS A MASTER'S RESEARCH PROJECT, A DEPLOYABLE STAIRS DETECTION AND STEP SEGMENTATION MODULE WAS DEVELOPED FOR THE MICROSOFT HOLOLENS 2 AS AN ELEMENTARY VISUAL IMPAIRMENT AID FOR USERS WITH GLAUCOMA. STAIRS DETECTION WAS DONE USING A CUSTOM TRAINED YOLO CNN MODEL AND STEP SEGMENTATION WAS PERFORMED USING A NOVEL ALGORITHM THAT SEGMENTS STEPS BASED ON CLUSTERED HORIZONTAL LINES IN REFERENCE TO DETECTION COORDINATES.

*Python, Unity, HoloLens Emulator,  
C#, Darknet YOLO*

### Tabung Haji THiJARI

ONLINE PLATFORM FOR TABUNG HAJI MALAYSIA USERS TO KEEP TRACK AND MANAGE HAJJ FINANCES RELATED OPERATIONS. FRONT END DEVELOPMENT OF THiJARI USING ANGULAR 8, HTML, SCSS ALONG WITH NODEJS FOR DEPLOYMENT.

*Angular, HTML, Typescript, SCSS,  
NodeJS*

### LIAM MyCoverage

WEBSITE FOR LIFE INSURANCE ASSOCIATION MALAYSIA'S (LIAM) MYCOVERAGE SERVICE PLAN. FRONT END DEVELOPMENT USING HTML, CSS, JAVASCRIPT AND LIFERAY CMS FOR CONTENT MANAGEMENT.

*HTML, Javascript, CSS, Liferay,  
jQuery*

### CIMB Clicks SG Tech Refresh & Soft Token

INFRASTRUCTURE REVAMP FOR CIMB CLICKS SINGAPORE'S MOBILE APPLICATION TO MIGRATE FROM SILVERLIGHT TO CORDOVA. TASKED WITH RESEARCH AND IMPLEMENTATION OF PUSH NOTIFICATION SERVICES USING GOOGLE CLOUD MESSAGING (GCM) WITH CORDOVA PLUGINS. ALSO INVOLVED IN SOFT TOKEN AUTHORIZATION IMPLEMENTATION FOR CIMB CLICKS SINGAPORE'S WEB CLIENT AND MOBILE APPLICATION.

*Java, Jsp.NET, Struts, Portlet, REST,  
SOAP, AngularJS, Cordova, DB2 SQL*

### Indoor Map Re-construction and Navigation

CAPSTONE PROJECT FOR BACHELOR'S DEGREE. AN INDOOR NAVIGATION SYSTEM APPROACH WITHOUT PRIOR KNOWLEDGE OR DEVICE REQUIREMENTS WAS PROPOSED AND IMPLEMENTED. USERS OF THE SYSTEM NEED ONLY A TAKEN PHOTO OF A DIRECTORY MAP AND DIRECTORY LOT LISTING FOR NAVIGATION TO TAKE PLACE. THE SYSTEM IS ACHIEVED THROUGH IMPLEMENTATION OF PERSPECTIVE CORRECTION, TEXT RECOGNITION, LOT SEGMENTATION WITH LABELING, AND ROUTING TECHNIQUES.

*Python, OpenCV, Google Visions API*

## Certification

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### Advanced Python

FROM LINKEDIN LEARNING

Credential ID: AY5j1OGzMuCqD-hxBYUdRxVAhliU

*Issued August 2020*

### Docker for Data Scientist

FROM LINKEDIN LEARNING

Credential ID: ATThUP-JyJ-Bw0dnWfI2-uB8RSDTZ

*Issued July 2020*

## Interests

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**RECORD COLLECTING:** Amassed a healthy collection of vinyl records due to love of music.

**CLASSICAL PIANO:** Classically trained in piano for 11 years, and have been playing for 16 years.

**COMPUTER ASSEMBLY:** Have assembled custom PC builds for myself and friends since I was 15 years old.

**BADMINTON:** Played badminton on a competitive school team level during secondary school.

## References

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**Dr. Sean McSweeney**, Email: sean.mcsweeney@cit.ie

*Head of Computer  
Science, CIT  
Senior Developer,  
Cyber Village*

**Aqly Bin Kamarudin**, Email: aqly@cyber-village.net