

Ha, Nguyen

Heidelberg Heights, VIC, 3081

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EDUCATION

Hanoi University of science and technology, Vietnam

Oct 2013 - Jan 2019

Major: Biomedical engineering

Swinburne University of Technology

Feb 2020 - present

Major: Master of Engineering (Research)

I am currently working in a project that utilize bio-signals such as eye-movement, EEG, and ECG to understand student pilots' cognitive development during their training. The aim of the research is to use machine learning for pilot assessment based on pilots' cognitive state.

WORK EXPERIENCE

Internship - Continental

Mar 2018 - Jul 2018

Regensburg, Germany

I was in the team "Biometric" and responsible for taking research on the topic "Heart rate measurement using camera". At the end of my internship, I developed a real-time demo for measuring heart rate using normal camera in realistic driving scenarios. Compare with a professional medical device, the error rate is +/-2 bpm. I also gave a presentation about the idea and showed demo in monthly department meeting. Below is the link to the simple version of the project: <https://github.com/habom2310/Heart-rate-measurement-using-camera>.

AI Engineer - Astec Corp

Aug 2018 - Apr 2019

Hanoi, Vietnam

I was a member of the team Research and Development. My responsibility was to develop a car parking system. I applied deep learning to automatically detect and recognize number plate for a realistic parking system. The accuracy increased from 85% to 90% compared to the previous method using computer vision. After that, I was in charge of the research of using face recognition and age/gender detection for building security system. A simple demo of the project can be found here: <https://github.com/habom2310/People-tracking-with-Age-and-Gender-detection>.

AI Engineer - Topica Education Technology

Apr 2019 - Jan 2020

Hanoi, Vietnam

I worked in the AI team of the company. My responsibility was to develop services (API) for the mobile app "Solvee", which is a mobile app that uses machine learning for education purposes. About the app, when users upload images of math problems and the app will return the solutions for that problems. I joined the R&D team from the beginning and was responsible for developing services to detect and recognize the mathematical expressions in the image. The detection model had 99% of accuracy for printed documents and 95% of accuracy for hand-written documents. The services worked on GPU server in AWS and was capable of serving up to 1000 requests per second during peak time. After that, I took responsibility to develop an e-learning section for the app, which I developed an adaptive learning system that can recommend different learning paths based on the learning ability of students.

CASUAL PROJECTS

During free time, I like to learn programming related things and do some personal projects, which I have shown in my blog <https://habom2310.github.io/>.

SKILLS

Programming	Python, C#
Database	MongoDB, SQL
Micro-service	Flask, Docker, AWS
Machine Learning	Tensorow, Keras, Pandas

