

# Nguyen, Khanh Ha

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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)*

## 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  $\pm 2$  bpm. I also gave a presentation about the idea and showed demo in monthly department meeting. Here 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 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. After the parking system project, 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 Research and Development department of the company. I was a member of team backend and developed services (API) for the mobile app "Giaingay", which is an education app that takes images of math problems and shows the solutions. I joined the app development team from the beginning and was responsible for developing services to detect and recognize the math expression in the image. My services work on GPU server in AWS and is 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 path 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/>. I also like to spend time in the Stackoverflow forum and answer questions <https://stackoverflow.com/users/8743494/ha-bom>.

## SKILLS

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