# **Tuan Dung Lai**

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#### **EDUCATION**

#### Swinburne University of Technology, Hawthorn, Melbourne, Australia

Bachelor of Computer Science with Mathematics minor

Feb 2017 – Jun 2020

- GPA: 3.7/4.0 (Transcript)
- Leader of Swinburne team in competitive programming contest ACM/ICPC (Certificate)

## PERSONAL PROJECTS

### ■ Machine Learning Blog (Web) (Link)

Feb 2017 - now

- Analyzes machine learning algorithms from mathematical perspective then visualize and implement them from scratch in python
- AI for Flappy-Bird Game (Python) (Report) (Code)

Aug 2017 – Sep 2017

- Develops a bot that can learn to Flappy-Bird Game over time
- Uses Python, PyGame, Neural Network Model, Genetic Algorithm
- Interactive data visualization (Web) (Link)

Mar 2018 – May 2018

- Creates web-based interactive visualization to explore large data set
- Uses D3 javascript library
- Planetary Rover Game (C#, Winform) (Link)

Jun 2017 – Aug 2017

- Develops a desktop game that allows player to control 2 rovers and play around with different devices in a 20x20 simulated area
- Uses C#, Winform, object-oriented principles, design patterns
- K-Means Visualization, Image Compression tool (Pascal) (Report) (Code) Apr 2017 Jun 2017
  - Helps students understand K-Means Algorithm faster by letting them visualize the process with their customized input followed by an application to reduce image file size and segment colors.
  - · Contains 1300 lines of Pascal Code

### AWARDS & SCHOLARSHIPS

### Highest achieving student in introduction to programming unit prize

2018

- · Provider: Integrated Application Development Pty Ltd
- Swinburne international excellence scholarship 4 year undergraduate

2016

2014

- Provider: Swinburne University of Technology, Melbourne, Australia
- National key program of mathematics development scholarship in period 2010-2020
  - Provider: Minister of Education and Training (MOET) of Vietnam (Certificate)

### **EMPLOYMENT**

### Sessional Academic - Swinburne University of Technology

Feb 2018 – now

- Unit code: COS10009 Introduction to programming
- Assists students with the entry level programming unit which uses C and Pascal language.

### Research internship - Swinburne University of Technology

Nov 2017 – Apr 2018

- Develops cross-platform application with voice-based user interaction, motion-compensated sound playback and 3D surround sound technology.
- Uses Javascript, Java, Max/MSP, GoogleVR API, Google Speech API and audio processing tools.
- Supervisor: Dr. Chris McCarthy

Barista

Feb 2017 – now

• Excelled within service-oriented positions (concurrent with college studies), delivering premium customer service and attracting repeat customers

LINKS

• **Github**: github.com/DungLai

• Linkedin: linkedin.com/in/tuandunglai

• Website: dunglai.github.io

[CV compiled on 2018-07-23]