

An aspiring automation enthusiast with Masters in Mechatronics Engineering at The University of Melbourne. Experienced in teaching, researching and technical work on topics of Computer Vision/Machine Learning, Electrical Systems, Mechanics, and programming tools on Python, MATLAB, C++. Passionate about Machine Learning applications in automation and robotics, and have a strong tendency to apply algorithms to real-life problems. Skilled in leading and working with diversified teams, with results-oriented attitude.

EDUCATION

THE UNIVERSITY OF MELBOURNE

Melbourne, Australia

Master of Engineering (Mechatronics Systems) - First Class Honours/High Distinction

July 2021 – December 2023

- 1st runner-up (2022) and 2nd runner-up (2023) in Australian Rover Challenge with UniMelb Rover Team
- Awards: **Telstra Digital Pioneering and Technological Breakthrough**; Top course performer: Computer Vision, Reinforcement Learning
- Scholarship: **Melbourne Graduate Scholarship 2022**
- Topics and tools covered: Computer Vision (**OpenCV, Python**); Stats ML/Deep Learning (**PyTorch, TensorFlow/Keras**), Sensors Systems (**MATLAB**), Dynamics, Reinforcement Learning and Game Agents (**Python**), Autonomous Robotics (**ROS, C++, Linux**)

Bachelor of Science - (Mechatronics Systems/Computer Science)

July 2018 – July 2021

- Executive Committee of International Vietnamese Students at UniMelb, Student Representative
- Awards: **Leadership in Community Award**; Top course performer - Machine Learning

EXPERIENCE

CSIRO – Data61

Melbourne, Australia

Vacation Student + Affiliated Researcher

November 2022 – March 2024

Australian Government's Renowned Scientific Research Agency, well known for the inventions of Wi-Fi and polymer

- Worked with Digital Human Team, responsible for development process of real-time 3D motion tracker using **Deep Learning** and **Computer Vision**. Won the **Best Presentation Award** in the 2023 Summer Vacation Cohort of CSIRO Clayton.
- Continued the work as a Capstone Project with University of Melbourne, forming a connection between CSIRO & UniMelb that later won Telstra's **Digital Pioneering and Tech Breakthrough Award**.

THE UNIVERSITY OF MELBOURNE

Melbourne, Australia

Academic Tutor

March 2022 – December 2023

Instructing students in the Master courses of Computer Vision (COMP90086), Machine Learning (COMP30027 and COMP90049).

- Prepared weekly materials to help students earn practical skills and tackle complex concepts efficiently in **Machine Learning**, **Computer Vision** and **Natural Language Processing**. Have guided more than 2000 students through weekly practicals discussing concepts of essential **Python Machine Learning/Computer Vision** tools (**Jupyter Notebook, numpy, pandas, matplotlib, sklearn, tensorflow, pytorch, opencv**).
- Assessed performances of students in **coding ability** and **critical thinking** via course reports and projects, gave concise and effective feedback in a timely manner.
- The youngest to be awarded uni's **Tutor of the Year Finalist Award**.

ALLMEDIADSK GMBH

Düsseldorf, Germany

A global IT company in the media and advertising industry based in Germany, mostly operated in European market.

Software Development Intern

September 2021 – May 2022

- Performed **full stack** tasks on the **NodeJS/MariaDB** software system of the company, ensuring that the system is always up-to-date with the clients' request. Migrated the system from **jQuery** to **React**, and optimized existing codes with additional algorithms in **JavaScript** and **MySQL** databases

WOOLCOCK INSTITUE OF MEDICAL RESEARCH (Now known as [Sydney-Vietnam Institute](#))

Hanoi, Vietnam

Data Analyst

May 2021 – August 2021

- Led a team of 3 to build an interactive website that let users define their own inputs to predict COVID-19 statistics from any region using **Python (Dash, NumPy)**, **HTML/CSS**. Was recognised by The Vietnamese Ministry of Information and Communications and many other Vietnamese health authorities and has been featured on **Forbes Under 30 Vietnam 2021** and The 52nd World Union Conference on Lung Health. ([Website](#)) ([GitHub](#))

MINISTRY OF HEALTH

Hanoi, Vietnam

Data Analyst

March 2020 – May 2020

Building a model strategy to forecast COVID-19 under the 'COVID-19 Prevention Project' of Vietnam Ministry of Health.

- Formulated the situation of COVID-19 in Vietnam by performing data engineering and constructing a system of **Mathematical/Machine Learning models using R, Python**. Automated information retrieval system of Vietnamese COVID patients. Received an Honoured scientific award from Vietnam Ministry of Health. ([GitHub](#))

THE UNIVERSITY OF MELBOURNE

Melbourne, Australia

Data Engineer / Research Assistant

November 2020 – March 2021

Performed visualisations and information retrieval from the smoke of 2019 Australian bushfires.

- Collaborated with a research team of 8 academics across Australia, led by Professor Andrew Ooi to conduct research on 'Entrainment and Mixing of Gravity Currents in a Stratified Ambient'. Published in '12th Australasian Heat and Mass Transfer Conference'.

MOMO (M_SERVICE JSC)

Ho Chi Minh City, Vietnam

DevOps Intern

January 2020 – February 2020

- Collaborated with 20 developers in an infrastructure team to contribute to **CI/CD** process of the company using **Ansible** and **Docker**, where 10 additional tasks were automated. Arranged an experience journal as a beginner's guide to **Linux**, **virtual machines**, and **system automation**, to use as a guiding documentation for next interns ([Website](#)).

COMMUNITY EXPERIENCE

MELBOURNE UNIVERSITY MOUNTAINEERING CLUB

Melbourne, Australia

Activity Leader

Aug 2023 – March 2024

Organise bushwalking trips for university students, and instruct them vital survival skills such as First Aid.

THE UNIVERSITY OF MELBOURNE

Melbourne, Australia

Subject Representative

Aug 2021 – Nov 2021

Represented more than 600 students to communicate with teaching staff and resolve problems arising among the cohort.

INTERNATIONAL VIETNAMESE STUDENTS AT UNI. OF MELBOURNE

Melbourne, Australia

Executive Committee

Aug 2021 – Nov 2021

Hosted and organized more than 10 events for a community of more than 100 Vietnamese students in the university.

MAZE VIETNAM

Ho Chi Minh City, Vietnam

Web Content Lead

Nov 2016 - Jul 2018

Led a team of 60+ members across Vietnam on writing travel guides and organizing day trips.

PTNK PHOTOGRAPHY CLUB

Ho Chi Minh City, Vietnam

Founder

January 2016 - January 2019

Founded and led a photography community of 40+ high school students.

RESEARCH PUBLICATIONS

Evaluation of Ergomechanic, a pose model-based markerless motion capture system, for skeleton model scaling and inverse kinematics

Melbourne, Australia

Journal of Biomechanical Engineering (Pending review)

2025

[Enhancing accuracy of chest x-ray diagnosis for respiratory diseases with transfer learning](#) (1st author)

Hong Kong

28th Congress of the Asian Pacific Society of Respiriology (AP13-059)

2024

[Entrainment and mixing of gravity currents in a stratified ambient](#)

Sydney, Australia

12th Australasian Heat and Mass Transfer Conference

2022

[A novel compartment model for analysing and predicting Covid-19 outbreaks in Vietnam](#)

Virtual

52nd Union World Conference on Lung Health (OA10-664-19, S78)

2021