

Duy (Edward) Le

Location: Canberra, Australia

E-portfolio: [duytrangiale.github.io](https://github.com/duytrangiale)

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INTERESTS

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- Mechatronics
 - Robotics and AI
 - Embedded system

KEY COMPETENCIES

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- Research and Development
 - System Engineering
 - Design Thinking
 - Analysis and Problem solving
 - Collaboration and Cooperation
 - Client engagement and support
 - Project management and organisational skills
 - Presenting technical information

Skills:

- **Programming language:** C/C++, Java, Python, MATLAB
- **AutoCAD, SolidWorks:** 3D Conceptual design and technical drawing
- **MATLAB Simulink, Simmechanics, ANSYS:** Simulation and structural analysis
- **Altium:** Electronic design (PCB) at primary level
- **Microcontrollers and FPGA:** design electronic systems using FPGAs (Verilog), PICs and AVR

Languages:

English (advanced), Vietnamese (native), French (intermediate).

EDUCATION

❖ Australian National University (ANU), Australia

July 2019 – July 2021

Master of Engineering (Mechatronics)

Academic achievements:

- **GPA:** 6.2/7.0
- **2021:** Presentation in the Canberra Innovation Network showcase as the best performance team in Capstone Project. Topic: "Automating the Archaeological Toolkit: Mechatronics Microdrill sampling of inclusions within pottery sherds".
- **2019-2021:** Completed with High Distinction in Research Projects of the courses:
 - "Advanced Topics in Mechatronics" (Topic: "Pseudo-LiDAR for Autonomous Driving")
 - "Advanced Control Systems" (Topic: "Routes planning for goods delivery")
 - "Control Systems" (Topic: "Altitude control of quadcopters")
 - "Engineering Data Analytics" (Topic: "Denoising images using Sparse Representation and K-SVD algorithm")
- Achieve "Distinction" performance in courses: Robotics, Control Systems, Professional Practice, System Modelling, Digital Systems and Microprocessors, Probability and Stochastic Process.

❖ Ho Chi Minh city University of Technology (HCMUT), Vietnam

Sep 2013 – Oct 2018

Bachelor of Engineering (Honours degree – PFIEV) in Mechatronics

Academic achievements:

- **GPA:** 3.5/4.0 – First Class Honour
- **2018:** Top 3 highest GPA in the Bachelor program in Mechatronics (PFIEV) of HCMUT
- **2018:** Ranked 5th in the Bachelor Thesis, title "Design & Control of the Hand Exoskeleton System".
- **2017:** Awarded "High quality academic research" in the Scientific Research Conference of PFIEV – HCMUT Students. Topic: "Mechanical Design of a Force-Feedback Hand Exoskeleton for Haptic Applications".
- **2016:** Awarded the best team of PFIEV for designing line-following robot in "Mechatronics System Design"
- **2015:** Certification for the participation in competition "Raise Your ARMs 2015" at HCMUT
- **2014 – 2018:** Academic Excellence Encouragement Scholarship, PFIEV Program, HCMUT

WORK EXPERIENCE

❖ TICTAG JSC COMPANY – EMBEDDED FIRMWARE ENGINEER

JANUARY 2019 – APRIL 2019

3-month internship with an information technology firm providing innovative solutions for startups and SMEs, consulting the clients with a full stack of services from software to hardware solutions.

Key Responsibilities:

- **Client Engagement:** worked with clients to gather stakeholder's requirements and provided general support under direct supervision of Lead Engineer, managed technical requirements and followed up key actions.
- **Research and Development:** undertook research to analyse the customer's requirements, identified key behaviours and functionality, designed the embedded system and interfaces.
- **Document writing:** prepared documentations to demonstrate the functionalities of the system "Tictag Smart Building Solution", generated the user's guide to help non-technical audiences in using the product.
- **Installation and Maintenance:** cooperated with other members in installing the hardware components and provided customer support.

Key Achievements:

Successfully developed the electrical management system for office building, maximised the saving strategies for customers, helped clients manage electrical usage effectively up to 30%, clearly provided detail instruction for the installation and maintenance of the system and for further development.

❖ **NHATTINH COMPANY – MECHANICAL DESIGN ENGINEER**

JUNE 2016 – SEPTEMBER 2016

Summer internship with a Mechanical and Industrial Design firm providing engineering design, manufacture and installation of industrial machinery and equipment.

Key Responsibilities:

- **Client Engagement:** discussed with customers to understand their needs and generated stakeholder's requirements with the instruction of supervisor.
- **Analysis and Design:** analysed the functionalities from customer's requirements, undertook research to produce general concept of the machine, implemented 3D conceptual design in Solidworks, evaluated the performance through prototypes and simulation.
- **Report preparation:** prepared technical reports and blueprints with the assistance of Lead Engineer, provided detail of technical issues, installation and maintenance instructions.
- **Customer support:** discussed with clients about the conceptual design of the machine, received feedbacks and adjusted the design to satisfy other requirements.

Key Achievements:

Successfully developed conceptual design for the fabric cutting machine, proved that the design can satisfy customer's requirement and achieve required performance, clearly provided detail report for manufacturing and installation.

VOLUNTEER PLACEMENTS

ANYou Student Leader: Career Accelerator

JULY 2021 – AUGUST 2021

Over a 2-week period, I proactively worked on my career and personal development by networking with 20-40 student peers, attended an employer panel event, participated in a resume and job application workshop and updated my LinkedIn profile and personal brand. I also completed the 11-day action challenge, collaborated with my peers to seek/provide constructive feedback and received a certificate verifying my achievements.

Humanitarian and Sustainable Project – Unbound 2021

DECEMBER 2021 – FEBRUARY 2021

By joining this Global Social Impact Program, I had the opportunity to meet many social entrepreneurs from different places around the globe, listen to their story and learn from their own experiences. This is a place where I can practice my skills in observation, problem-solving, ideation, and decision making.

Summer Connections Personal Development Bootcamp Graduate

JANUARY 2021 – FEBRUARY 2021

The Personal Development Bootcamp series helps me to discover more about my personal strength as well as weakness. From that point, I can learn to develop topic-specific skills, put them into action and enhance my personal and professional level.