ALBERT CHOW

📞 0468 841 302

✉ abhchow@gmail.com

🌐 linkedin.com/in/abhchow

📍 Melbourne, Australia

PROFILE

My passion for innovation and technology drives me to put myself in situations where I have to learn new things. Whether that's a new language, framework or hardware, or learning to work in new environments with different people and projects, I'm always up for a new challenge. I have a keen interest in both mathematics and programming, and love opportunities to use them to build practical software.

EXPERIENCE

Monash University
📍 Melbourne, Australia

Teaching Associate - Faculty of Engineering — July 2021 - Present

- Demonstrator for Engineering Numerical Analysis (ENG1014), Computing for Engineers (ENG1060), and Engineering Design: Cleaner, Safer, Smarter (ENG1002)
- Programming in Matlab, numerical methods, dynamics, circuit analysis and project design
- Supporting students in completing labs on programming and numerical methods problems
- Marking code, conducting programming interviews for individual assignments
- Presenting worked examples to large groups of students in lectures
- Developing content for a new unit in the form of notes and videos
- Managing and marking students' group projects designing wastewater treatment plants and LED lamps

`Matlab` `Mechanical Engineering` `Electrical Engineering` `Mathematics` `Teaching`

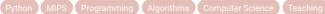**Teaching Associate - Faculty of Information Technology** — July 2021 - Present

- Tutor for Algorithms and Programming Fundamentals in Python (FIT1045) and Introduction to Computer Science/Advanced/for Engineers (FIT1008/1054/2085)
- Programming in Python, algorithms, data structures, MIPS assembly
- Assisting classes of 10-50 students in completing programming tasks
- Presenting and explaining the theory of different algorithms and data structures, and their applications and implementation details
- Conducting programming interviews for both individual and group assignments

`Python` `MIPS` `Programming` `Algorithms` `Computer Science` `Teaching`

Summer Research Intern — Nov 2021 - Feb 2022

- Research Project with the Department of Electrical and Computer Systems Engineering
- Programming a robotic arm in Python/ROS to build a domino line collaboratively with humans
- Studying development of trust and trust repair in collaborative tasks

`Python` `ROS` `Robotics` `Research` `Psychology`

Private Tutoring
📍 Melbourne, Australia

High School Mathematics Tutor — 2019 - 2022

- Teaching mathematics from Year 9 through to VCE Specialist Mathematics
- Structuring content focussed developing intuition, understanding and practical applications
- Managing a small business; maintaining professional image, communications and standards

`Mathematics` `Teaching` `Business Management`

SKILLS

Programming & Coding:
Python, MATLAB, C, Javascript, Typescript, MIPS, Mathematica

Manufacturing & Engineering:
Machining, 3D Printing, Electronics

CAD & Design Software:
Solidworks, Siemens NX, Ultimaker Cura

Soft Skills:
Teaching, Business Management, Teamwork & Integration

Miscellaneous:
Adobe Suite, REAPER Audio, OBS Studio

CERTIFICATIONS

Working With Children Check (2020)
Level 2 First Aid and CPR (2019)
Certified Solidworks Associate (CSWA) (2020)

INTERESTS

Music   Cycling
Beatboxing   Puzzles
Swimming   Electronics

Monash Motorsport

 Monash University

Electrical Systems Engineer
Apr 2020 - Jul 2021

- Development of an autonomous electric racing vehicle for Formula Student Competitions
- Designing, manufacturing and testing a high voltage distribution system to deliver power throughout the car
- Testing, calibrating and tuning an inverter to control a permanent magnet synchronous motor
- Working in a team of over 100 people; co-ordinating work with other part designers and ensuring smooth integration with other parts

Electrical Engineering · Automotives · Manufacturing · Siemens NX · Teamwork & Integration

Senior Advisor
Mar 2021 - Jun 2021

- Advisor to new recruits; organising and running activities for the recruits
- Teaching various skills, ranging from hands on manufacturing skills to Solidworks to electrical theory
- Managing and marking Junior Projects for the recruits' design subject as part of their university course

Teaching · Electrical Engineering · Solidworks

EDUCATION

Bachelor of Engineering (Hons.) and Bachelor of Science
Monash University
2018 - 2024
Specialised in Mechatronics Engineering
Majors in Mathematics and Computational Science

Monash Industry Skills
Chisholm Institute
2021
A tailored course for Monash University teams to develop engineering workshop proficiencies. Content covered included various hand tools, drills, lathes, and milling machines.

Certificate III in Laboratory Skills (MSL30109)
Box Hill Institute
2015-2016
Learnt how to work with various laboratory equipment including autoclaves, sample media and microscopes. A focus was placed on safety and practical skills for a laboratory technician.