# Tristan Ranee



+61 450 361 351



www.linkedin.com/in/TristanRanee



tristanranee@gmail.com



www.github.com/TristanRanee

I am an ambitious individual with a commitment to continuous improvement and a passion for helping others. I aspire to change the world through a contribution to the development of biomedical devices, specifically Brain-Computer Interfaces (BCI), utilising my knowledge and skills to make a significant contribution to the success of mankind.

## PROJECTS/EXPERIENCE

#### HARDWARE PRODUCT DEVELOPMENT INTERN

EMOTIV RESEARCH PTY LTD | June 2019 - February 2020

Duties include: hardware and firmware development relevant to wireless wearable EEG technology suitable for consumer use, designing schematics and PCB's using standard tools, board debugging, assembly and testing, and using embedded software for prototype testing.

#### CASUAL ACADEMIC: LABORATORY DEMONSTRATOR

UNSW | February 2019 - Present

Currently mentoring and conducting laboratory demonstrations for first-year students undertaking introductory electronics. Specialising in electrical engineering labs involving microprocessors.

#### **ELECTRICAL LEAD**

UNSW Vertically Integrated Project: Neural Stimulator | January 2020 - Present

Project to design a wireless neural stimulator that can be implanted on the surface of the cortex. My position involves leading a subteam that is responsible for the overall circuit design as well as integration with mechanical and software systems.

### VOLUNTEERING/LEADERSHIP

#### **UNSW HERO**

**UNSW Heroes Program | January - March 2019** 

Played an active role in the future development of the University through being responsible for the creation and presentation of an innovative service improvement concept that aimed to fundamentally enhance the experience of UNSW Students, Staff and Alumni.

#### **ENGSOC VOLUNTEER DEVELOPMENT PROGRAM**

**UNSW Engineering Society | July - November 2018** 

Consisted of a 20hr volunteering component as well as workshops which covered soft skills such as: Leadership, Communication, Teamwork, Strategic Planning, Public Speaking and Professional Development.

#### **ENGINEERING INDUSTRIES PROGRAM**

**UNSW Engineering Society | July - October 2018** 

Long term program where students are required to create innovative and feasible solutions to engineering cases and present them fortnightly to peers as well as industry partners.

#### **EDUCATION**

# UNIVERSITY OF NEW SOUTH WALES

Bachelor of Electrical Engineering/Masters of Biomedical Engineering (2018-)

#### **SKILLS**

#### Soft Skills

- Collaboration and teamwork
- Written and verbal communication
- Organisation and time management
- Leadership and initiative
- Multitasking and high attention to detail
- Critical thinking and problem solving

Programming Languages

- C++
- Python
- Objective C

**Software Skills** 

- Altium/KiCad
- MATLAB
- Simulink

#### Hardware Skills

- Circuit, schematic, and PCB design
- Soldering and physical assembly
- Board level debugging, and testing.
- Microprocessor applications
- Signal analysis and acquisition

#### OTHER INTERESTS

On the side, I do rock climbing and martial arts. I am also an avid musician, with visual arts also being my passion along with app and graphic design.