



Sam Young

BIOMEDICAL ENGINEER

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SKILLS

Hard Skills:

Applied Machine Learning
Biomedical Device Development
Gesture Recognition
Applied Research
Game/App Development

Soft Skills:

Communication
Work Ethic
Problem Solving
Interpersonal skills
Teamwork

SOFTWARE

Python
C#
MATLAB
Unity3D
Fusion360
Arduino
JavaScript

ACHIEVEMENTS

- ❖ Published peer reviewed paper in IEEE International Conference on Advanced Intelligent Mechatronics – 2019
- ❖ UOWx 500+ hours accreditation – 2019
- ❖ UOW Dean's Merit List – 2017
- ❖ Australia Day Young Citizen of The Year Award (Yass) – 2015
- ❖ UNSW Academic Achievement Award – 2015
- ❖ Don McColl Memorial Award – 2015
- ❖ CWA Leadership & Service Award – 2015
- ❖ Dux of Yass High School – 2015
- ❖ Victor Chang Science Award – 2014

EXPERIENCE

- ❖ Engineering and Information Sciences Research Assistant • Nov 2018 – Feb 2019
Developed gesture recognition system based on EMG and gyroscopic data. Increased prediction accuracy from 83% to 94.8%. Applied machine learning techniques and implemented a prosthetic limb interface. Lead author of corresponding published conference paper. DOI: 10.1109/AIM.2019.8868766
- ❖ University of Wollongong (UOW) Senior Peer Assisted Study Sessions Leader • Jan 2017 – Present
Created and delivered content for multiple engineering subjects. Have facilitated two subjects simultaneously and was the first Engineering and Information Sciences leader to spearhead the online platform.
- ❖ Peer Academic Coach • UOW • Feb 2019 – Present
Provided one-on-one support for a range of academic topics to help students develop their independent learning skills. Assisted with university challenges including exam preparation, study techniques and accessing resources.
- ❖ Biomedical Engineering Executive Academic Ambassador • UOW • Jul 2018 – Present
Facilitated networking and communication with students, clubs, communities and academic staff. Volunteered building free 3D printed prosthetics. Role modelled within tertiary and secondary education communities.
- ❖ Accommodation Student Leader • UOW • Nov 2017-Feb 2019
Supported residents, facilitated many wellbeing-focused events conducive to academic, personal and social growth. Trained in first aid, mental health, building/fire warden safety, drug and alcohol health.

EDUCATION

- ❖ Bachelor of Engineering Biomedical (Honours) (Scholar) • University of Wollongong • 2016 - Present
Dean's Scholar, Engineering Scholars and Advanced Scholarship
Engineering and Information Sciences Academic Achievement Scholarship
16 High Distinctions, 7 Distinctions, 1 Credit
Grade Point Average 6.6
- ❖ Higher School Certificate • Yass High School • 2015
ATAR – Scaled: 98.5
Dux of Yass High School || Ranked first in all subjects years 10-12
Principal's Award of Excellence, Faculty Award for Achievement years 10-12

PROJECTS

- ❖ Pattern Recognition for Infrared Technology Control using Soft Pneumatic Chambers and Machine Learning Techniques
- ❖ Pattern Recognition for Prosthetic Hand User's Intentions using EMG Data and Machine Learning Techniques
- ❖ Passive Multistage Wearable Chair with Integrated Metabolic Reduction Mechanism
- ❖ Shmack! Mind Puzzle Mobile Game
- ❖ Digit Strength and Mobility Analysis Glove
- ❖ Passive Postural Stability Orthotic Device Using Solely AM Techniques