# **Tony** HUANG

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## education

## **Bachelor of Advanced Computing**

Major: Computer Science University of Sydney | 2018-2022 WAM (to-date) ≈ 89.8

#### **Bachelor of Engineering**

Honours Class II, Division I Major: Civil (Environmental) University of Sydney | 2012-2016 WAM ≈ 74.5

James Ruse Agricultural High School ATAR = 97.55 | 2006-2011

## skills

## Languages

Python Java Javascript MATLAB HTML CSS **Tools** Git VSCode Node.js

MongoDB

Express.js

## awards & competitions

#### The Smyth Prize in Environmental Engineering 2016

Awarded for achieving the highest final honours year WAM in the Civil (Environmental) Engineering stream in 2016.

## The Hult Prize 2016 - "Crowded Urban Spaces"

Repurposing of unused/underutilised urban spaces to provide economic opportunity for impoverished and disadvantaged outer metropolitan regions through urban farming and food initiatives.

## objectives

Civil Engineer turned Computer Science student looking to commit focus and energy to solving technology related problems. Currently on the lookout for knowledge and working experience in web development, cyber security and artificial intelligence.

## coursework

Introduction to Programming | Introduction to Computer Systems | Computing 1A & 1B: Computing Professionalism, OS and Network Platforms | Object-Oriented Programming | Linear Algebra, Vector Calculus and Statistics

## projects

#### Firebot Simulation | Introduction to Programming

An optional assignment requiring an implementation of a textbased simulation of controlled burning of bushland in Python. Implemented basic object-oriented concepts and flow control to generate a map of bushland subject to the effects of fire and wind across a daily time series.

#### Unix Shell Implementation | OS and Network Platforms

A Bash-like command interpreter written in Python designed to incorporate common Unix-like commands and features, such as piping, I/O redirection, process forking etc. Direct invocation of system calls and subprocesses was prohibited as all non-built-in commands had to be implemented in Python from scratch.

#### **Rescue Rover | Introduction to Computer Systems**

A robot rover prototype was assembled and programmed on the Arduino platform that used accelerometer, temperature and light sensors. The robot leveraged upon a design incorporating lowcost and expendable sensors mounted onto a motorised rugged chassis. Bluetooth was used for wireless communication between the robot and the controlling device.

## employment

## Hyve Designs | May 2018 - Current

Structural Engineer

- Served as structural draftsman in setting up and detailing of various residential/commercial jobs in wider Sydney area
- Preliminary design of steel, timber and concrete structural elements across various jobs
- Setting up of company back end resources, including drafting standards and design documentation

#### **Capital Engineering Consultants | July 2016 - April 2018** Graduate Structural Engineer

- Primarily responsible for structural design of reinforced concrete structures across variety of small/medium sized multi-residential and mixed development projects in Western Sydney
- Developed in-house design tools to streamline design processes tailored to company procedures
- Delivered short training seminars on engineering software tools and assigned design topics