

# Ryan Pereira

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## Education

University of Technology Sydney (UTS), WAM: 75

2015 - 2019

Bachelor of Engineering, Honours (ICTE, Software Engineering) Diploma in Engineering Practice.

## Work Experience

Software Engineering Intern, Thales Australia

July 2018 - Present

- Realising a complex engineering testing tool which interfaces with a drone management and validation system to simulate 100's of drones as a Software Engineer in a team of 3.
- Created and maintaining 4 reusable networking libraries and a major Front-End map component implemented across projects.
- Implementing the **MEAN Stack** including an implementation of a complex **REST & STOMP** Interface.
- Knowledge leveraged: **JavaScript/TypeScript, Angular, Git, MongoDB, C++, Unreal Engine.**

Full Stack Web Developer Intern, OzEducation

January 2017 - November 2017

- Primary developer a large-scale Childcare Management System serving 8 childcare centres and 1 administration branch.
- Performed Requirements Analysis through 6 sprints to write up 30+ issues.
- Developed a demonstrable prototype within 6 months; extended it to target the Chinese market in 4 months.
- Knowledge Leveraged: **NodeJS, JavaScript, AngularJS, SQL, Android, NFC, DevOps, Alibaba Cloud.**

Software Developer Intern, Abuzz Solutions.

August 2016 - January 2017

- Developed programs and scripts to enhance and automate digital workflow.
- Automated the common task of importing store lists to save 2 days' worth of manual data entry time.
- Implemented a basic scripting language in Java.
- Knowledge Leveraged: **Java, BASH and JavaScript.**

## Technical Skills

### Proficient

JavaScript, Typescript, C, Git, Angular, Node.js, TCP, UDP, Bash, HTML, CSS

### Familiar

Java, C#, C++, Python, SQL, NoSQL (MongoDB), Android, Networking and Routing, AWS, Azure

## Transferable Skills

- Teamwork and Time management that I've had to apply across 2 agile workplaces and 3+ multi-team projects.
- Strong Written and Verbal Communication skills as demonstrated by client presentations and written documentation and discussion targeting technical and non-technical stakeholders.
- Solid experience in Agile Methodologies as all my past projects have used this.
- Requirements Analysis skills - First internship where I was directly communicating with the clients.
- Leadership as a Team Lead during my time working on the Smart Restaurant System Project.

## Notable Achievements

### WiseTech Global Senior Programming Prize

Student in the Subject 48430 Fundamentals of C Programming with the highest overall mark. Received as part of my enrolment in the University of Technology Sydney.

## Thales Senior Cooperative Scholarship

Selected from a large pool of applicants and given the opportunity for a work placement at Thales.

## Notable Projects & Past Work

### Smart Restaurant System

- Part of a 17-person team to produce a Smart Restaurant System that consisted of Web Front end, back end and humanoid robot that would serve and guide customers.
- Spearheaded design and implementation of the robot with a team of 3 as the Team Lead and a Software Engineer for the Front End team.
- Implemented a real-world application of Dijkstra Algorithm to provide path finding for the robot which was built upon theory learned in another course.
- Presented the Robots team and Front End team progress to the client every 2 weeks.
- Rigorous use of a Kanban Board to plan features and implementation.
- Knowledge Leveraged: **Java, Android, Graph Algorithms, JavaScript, Kanban Boards.**

### IoT Submarine utilising a Raspberry Pi

- Designed and developed from scratch a submersible control system using a Command Interface and a submersible consisting of 3 motors, 1 camera and 3 sensors.
- Developed the Python hardware interface to control motors, read sensors including the camera live stream and the HTTP/WebSocket Control interface.
- Architected the multiple client architecture which supports any number of submersibles and reduced development time.
- Developed within a team of 5 to deliver the product in a timeframe of 5 weeks.
- Knowledge Leveraged: **Python, Raspberry Pi & GPIO, REST, Flask, JavaScript.**

## Personal Projects

### Digital Hymn Library

- Volunteering at my local church I've designed a cloud digital library system that manages projections and music sheets for a mass of 300+ people.
- Automated the generation of weekly projections converting an hour task to a 2 minute one.
- Improved workflow for choir leader by halving the time he spent needed to review projections.
- Designed and developed presentation software that is bundled into projections to provide an in-house and customised solution to the presentation needs of the church.
- Ability to generate hymns and edit them all within the browser although they are stored in a Word compatible format to retain compatibility.
- Knowledge Leveraged: **JavaScript/TypeScript, Node.js, DOM Parsing.**

### Porting Applications and Libraries to Embedded Systems

- Developing tools and applications (or homebrew) on embedded systems without a publicly available toolchain.
- Developed on the PlayStation Vita & Nintendo 3DS.
- Ported a buildable but bare version of Python to the PlayStation Vita.
- Knowledge Leveraged: **C, CMake, Make, Python.**

## Referees

Available on request