

BYRON HALLETT

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SUMMARY

I am passionate nanotechnologist, developer and game-designer, motivated to work in creative environments with the ultimate goal of creating novel experiences, developing supportive humanitarian tools and solving puzzles.

Through my multi-disciplinary work, tertiary study, and self-driven interests, I have established a high level of confidence in: Video game design/development, scientific programming and data science, formal verification, embedded-systems programming, mobile development, UX/UI design, and full-stack web development.

I aim to apply and further hone my skills by exploring and creating with other passionate individuals.

EDUCATION

Masters of Information Technology 2016 - present

University of New South Wales

Specialisation in Artificial Intelligence and Data Science

Weighted Average Mark: **86.67**

High Distinctions (85+): Principles of Programming (Python), Artificial Intelligence, Advanced Software Verification, Data Structures and Algorithms, Software Construction, Computer Graphics, Design and Analysis of Algorithms

Bachelor of Nanotechnology 2011-2015

University of New South Wales

High Distinctions: Computing for Engineering (VBA), Electronics, Laser and Spectroscopy Laboratory, Photonics Laboratory, Physics of Solid State Devices

International Baccalaureate 2007-2008

Central Coast Grammar School

EXPERIENCE

Pleasing Results 2016-present

Video Game Developer (Apple SpriteKit, Unity3d, JOpenGL, GO) Sydney, Australia

- Designed and implemented unique video game concepts in a variety of engines and languages.
- Created an in-house game engine for 2D and 3D games, using Java and OpenGL.
- Designed original art styles in 2D and 3D, both organically and programmatically.
- Implemented small scale game servers for networked game concepts.
- Created sound and music for video games.

Student Services Australia 2016 - Present

Mobile and Backend Contractor (React Native, Django) Sydney, Australia

- Worked in a small team to create a student centric Superannuation platform.
- Designed and developed a Swift native frontend during prototype stage.
- Developed a React Native frontend and Django backend for production stage.
- Implemented top-grade security features, to meet the requirements of the finance sector, and to pass rigorous third party penetration testing.

Polity.xyz

Full Stack Contractor (ReactJS, NodeJS)

2018

Sydney, Australia

- Worked in a team of two to create a political information and communication stack.
- Developed a mobile-first React web frontend and Node server for production.
- Performed TDD development cycle by creating a broad suite of unit tests for both frontend and backend.
- Exercised security best practices to protect the reputation of the product
- Configured one button deployment pipeline.

EmpireOne Group

Junior full stack developer (AngularJS, Ruby on Rails)

2015

Sydney, Australia

- Developed a full stack eCommerce solution in AngularJS and Ruby on Rails. The project aimed to help winery owners manage their business.
- Worked in an small agile business structure, allowing me to contribute to managerial roles.
- Assisted with customer facing relationships, ascertaining winery owner requirements and managing development priority.

UBS Investment Bank

Quality Assurance (Software Testing)

2014

Sydney, Australia

- Contributed to the development of a superannuation platform, utilising a broad knowledge of software functionality and keen attention to detail.
- Developed in-house tools for test case management and browser automation (by writing unit tests in clojure for the selenium toolset).
- Worked in a highly dynamic business environment, involving collaboration with a sister company. This allowed me to exercise concise and eloquent communication and independent discipline.

TECHNICAL STRENGTHS

Commonly used languages	Python, Swift, Golang, C++, JavaScript, sh/bash, C#
Other language proficiencies	Java, Dart, Ruby, Perl, PHP, Clojure, Haskell, Prolog, R, Mat-Lab, Mathematica, PL/pgSQL
Frameworks	React Native, ReactJS, AngularJS, NodeJS, Django, Unity3d, Ruby on Rails, Hadoop
Databases and related	PostgreSQL, SQLite, Redis, MongoDB, MySQL, Realm (mobile)
Tools and environments	Git, Unix CLI, Jenkins, CircleCI, Linux, MacOS
Other	Unit-testing, Complexity analysis, Deployment automation, La-Tex documentation (like this one)

OTHER INTERESTS

Board games	Especially those with puzzle elements, and deep strategy
Bouldering and rock-climbing	Indoor bouldering in Sydney and outdoor climbing on the Central Coast
Open-source electronics	Arduino and Raspberry Pi for home server, smart home automation.
Music	I have played jazz guitar semi-professionally.
Game development	It's just so fun, I'm going to mention it again
Teaching and blogging	I enjoy introducing people to programming through projects tailored to their interests. byronhallett.com

REFERENCES

Available on request