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# JONATHAN MOALLEM

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## EXPERIENCE

- Gameloft Brisbane — **Senior Gameplay Engineer** **01/2024 – PRESENT**  
— **Mid-Level Gameplay Engineer** **06/2022 – 12/2023**
- Delivered one of Apple Arcade's flagship titles, My Little Pony: Mane Merge, an officially licensed merge game for iOS, macOS, and tvOS, from vertical slice to release and across a handful of content updates with Unreal Engine using C++, Blueprint and Python
  - Developed and supported several, high-quality, maintainable gameplay features and systems against a tight schedule, including FTUE, load/save, configuration management and multiple mini-games, whilst actively working to improve the health of the codebase
- Caps Collective — **Programmer, Designer & Co-Founder** **02/2020 – PRESENT**
- Developed several games and software projects in Unity, Godot and Unreal, as well as developing a custom game engine in C++ as part of an open source developer collective
  - Led and managed a team of part-time developers to publish a 3D city-builder game, Fantasy Town Regional Manager, on Steam, listed by Kotaku Australia amongst the top 10 Australian games of 2021, and AGDAs finalist in emerging games (*see portfolio on page 2*)
- Animal Logic — **Pipeline Software Engineer** **03/2021 – 05/2022**
- Developed and maintained VFX pipeline systems in Python and C++ for libraries, applications, and DCC plugins based on Pixar's USD 3D scene description format
  - Contributed to architectural design of core functionality (such as asset resolution), and open sourcing of Animal Logic's Maya USD plugin to Autodesk's public repository
- Foreign Brief — **Android Developer** **11/2017 – 10/2019**
- Led development of Android app and consulted web API restructure for v2 overhaul
- U:PASS UTS — **Programming Tutor** **03/2018 – 06/2018**
- Tutored students on MVC architecture and UI programming patterns in Java
- Sentia — **Junior Rails Developer** **01/2017 – 01/2018**
- Built out and maintained several Ruby on Rails web-apps for enterprise clients
- Sudo-Code Software — **Technical Designer & Co-Founder** **09/2014 – 03/2019**
- Released a mobile game, Pongagon, attaining over 20,000k downloads on iOS alone
  - Led a team of three developers, managed client interaction, and handled UX&I design
- Interactive Investor — **Junior Web Developer** **11/2015 – 08/2016**
- Developed Wordpress annual reporting sites for corporates, such as Telstra and Westfield

## EDUCATION

- University of Technology Sydney — **Bachelor of Science (Honours) in IT** (87.09 & 98.43 WAM) **2016 – 2020**
- Thesis on emergent narrative, game AI techniques and engineering practices
  - Published original research to IEEE Conference on Games in AI & interactive drama
  - Graduated with high distinction (98.43 WAM), earning university medal
- George Mason University, Virginia — **Computer Science** (Academic Exchange) **2018 – 2019**

## TECHNICAL SKILLS

### **Programming Languages**

C/C++	Python	Unreal Blueprint	C#	Lua	GScript	Ruby
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### **Frameworks & Libraries**

Unreal Engine	Godot Engine	Maya API	iOS SDK	Qt
Unity Engine	Pixar USD	GitHub Actions	Android SDK	Ruby on Rails

### **Misc.**

Git	Perforce	Jira	Trello	Narrative Design	UX&I Design	Music Production	Data Analytics	Video Editing
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## PORTFOLIO

### **Fantasy Town Regional Manager**

Built a fantasy card-based, town-builder game in **Unity** part time with a small team, listed by Kotaku Australia as one of the **top 10 Australian games of 2021**, and **2022 Australian Game Developer Awards (AGDAs) finalist** for the emerging games category

[store.steampowered.com/app/1524530](https://store.steampowered.com/app/1524530)

### **Siege Engine**

Built an open-source, light-weight, **custom C++ game engine** based on **Vulkan** graphics API, boasting a **Make-based**, modular build system, unit tested core features, and a **CI/CD pipeline** for compiling cross-platform builds and release management

[github.com/CapsCollective/siege-engine](https://github.com/CapsCollective/siege-engine)

### **Run for Covert**

Built a fully **procedurally generated, online multiplayer**, tactical FPS in **Unreal Engine**, with **HFSM-based AI** and **intelligent cover system**

[caps-collective.itch.io/run-for-covert](https://caps-collective.itch.io/run-for-covert)

### **Raylib C++ Starter Kit**

Built a lightweight, portable, automated template for **raylib game engine library** projects with **C++ bindings**, using **Make** and **CI/CD tooling**

[github.com/CapsCollective/raylib-cpp-starter](https://github.com/CapsCollective/raylib-cpp-starter)

### **A Review of Agency Architectures in Interactive Drama Systems**

Published an **academic paper** on **interactive drama & AI** in the 2020 **IEEE Conference on Games**

[ieeexplore.ieee.org/abstract/document/9231655](https://ieeexplore.ieee.org/abstract/document/9231655)

### **Daily Brief**

Built versions 1.0 and 2.0 of a commercial **Android app** for daily geopolitical updates with **subscription features**, including **tags**, **search**, and **map-view**

[play.google.com/store/apps/details?id=com.foreign\\_brief.daily\\_brief](https://play.google.com/store/apps/details?id=com.foreign_brief.daily_brief)

*Check out my Github (@jonjonde), and personal website (jonjonde.com) to see more projects*

## OTHER ACHIEVEMENTS & HONOURS

- Achieved University of Technology Sydney's **engineering faculty Dean's List across 2017, 2018, and 2021**
- Won the **Game Narrative Review Gold Award** for paper presented at **GDC San Francisco**
- Selected as one of 11 amongst 8000+ students across Australia as one of **AFR's Top 100 Future Leaders** for technology
- Completed **12 games in 12 months** challenge, **winning best-in-showcase awards for three separate entries**