
JONATHAN MOALLEM

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EXPERIENCE

- Gameloft Brisbane — **Mid-Level Gameplay Programmer** **06/2022 – PRESENT**
- 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 | GDScript | Ruby

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

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

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

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

Siege Engine

Built an open-source, light-weight, **custom C++ game engine** based on **Vulkan** graphics API, using 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

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

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

Check out my Github (@jonjondev), and personal website (jonjondev.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**