

Morgan Wall

ENGINEERING MANAGER · SENIOR SOFTWARE ENGINEER

Sydney, New South Wales, Australia

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Summary

Morgan is a seasoned manager and software engineer with over 15 years of professional experience. Lately, he has worked in high-performance, real-time video game development with a wide variety of large-scale and bespoke studios including Blizzard Entertainment and Defiant Development. Whilst working at these studios, he has developed and supported over eight products which have collectively garnered upwards of 250 million users. Throughout his career, Morgan has leveraged his background as a mathematician and an educator to effectively solve complex problems alongside colleagues and customers in the app, web, and academic software development spaces. Previously, Morgan was an engineering lead at Gameloft, where he was responsible for facilitating the development of *Carmen Sandiego* in partnership with Netflix for PlayStation, Xbox, Nintendo Switch, PC, and mobile. Now, Morgan is a staff software engineer at Riot Games working on *League of Legends*.

Skills

- Hard Skills** C, C++, C#, Objective-C, Python, Lua, MATLAB, SQL, HTML, CSS, XML, JSON, Visual Studio, XCode, Rider, PyCharm, UE5, UE4, Unity, DOTS, ECS, Burst, SFML, Git, SVN, Perforce, Upsource, Jira, Confluence, Microsoft Office Suite, AWS, Route 53, RDS, S3, EC2, REST, LAMP, Linux, Bash, Google Workspace, Workday
- Soft Skills** Leadership, management, interviewing, technical assessments, onboarding, performance reviews, agile, scrum, Communication, time management, task estimation, planning, collaboration, adaptability, documentation, Critical thinking, problem solving, code reviews, mentoring, tutoring, presentations

Work Experience

Riot Games

New South Wales, Australia

STAFF SOFTWARE ENGINEER

Mar 2025 - Present

- Worked on *Doom Bots* and *Ultra Rapid Fire* for *League of Legends* using C/C++, Python, JavaScript, Lua, and an in-house engine
- Led, identified, and built improvements to promote sustainability and reusability for new and rotating game modes
- Developed tools for analysing and reporting performance issues across art, design, and engineering on the client and the server

Gameloft

Queensland, Australia

LEAD ENGINEER & SENIOR SOFTWARE ENGINEER

Aug 2022 - Mar 2025

- Led the development of *Carmen Sandiego* for PlayStation, Xbox, Switch, PC, and mobile using C/C++ and Unreal Engine 5
- Worked on *The Oregon Trail* and *The Chisholm Trail* expansion for Apple Arcade using C/C++ and Unreal Engine 4
- Managed over eight individual engineers of differing tech domains, skill levels, and cultures
- Established policies and procedures for software development, project management, and internal and external communications
- Collaborated and coordinated with all major departments and disciplines both locally and abroad
- Represented Gameloft at GCAP, MIGW, Queensland Game Festival, Big Day In, and more

Playcorp Studios

Victoria, Australia

SENIOR SOFTWARE ENGINEER & SOFTWARE ENGINEER

Sep 2020 - Sep 2021, Nov 2021 - Aug 2022

- Worked on *Beyond Contact* for PlayStation, Xbox, and PC using C#, Unity, DOTS, ECS, C# jobs, burst, and third-party tools
- Provided support, direction, and insight for numerous engineers working in a variety of roles
- Developed and applied a suite of modular, entity-agnostic AI systems and tools including stimuli
- Revamped complex pre-existing systems in a cost effective manner to address chronic stability, scalability, and usability issues
- Established and applied clear design patterns for implementing in-editor tools using UI Builder

LEAD DESIGNER & ASSOCIATE DESIGNER

- Designed, scheduled, and implemented large features and prototypes for *Beyond Contact*
- Engaged with internal and external stakeholders in setting and achieving clear goals on time
- Pitched, planned, and executed initiatives to improve project engagement teamwide
- Streamlined and simplified project management practices via Jira, Confluence, and Google Workspace
- Designed and evangelised systems in a uniquely holistic way that led to easy planning and assessment

Blizzard Entertainment

California, USA

SENIOR SOFTWARE ENGINEER & SOFTWARE ENGINEER

Nov 2019 - Sep 2020, Sep 2021 - Nov 2021

- Worked on *Hearthstone* for PC and mobile using C#, Unity, C/C++, an in-house engine, and web technologies
- Became extremely comfortable with extending and improving a large, established code base
- Played a key role in an array of interviews for prospective engineers and game design
- Established onboarding resources for new hires and guided them through key content

Defiant Development

Queensland, Australia

SOFTWARE ENGINEER

May 2018 - Aug 2019

- Worked on *Hand of Fate 2* and *The World In My Attic* for PlayStation, Xbox, Switch, and PC using C# and Unity
- Seamlessly integrated into an existing team and quickly made substantial contributions to ongoing projects
- Designed, developed, and maintained several game systems and mechanics including AI, world simulations, combat, and more

Gameloft

Queensland, Australia

SOFTWARE ENGINEER & JUNIOR SOFTWARE ENGINEER

Jan 2015 - May 2018

- Worked on *Ballistic Baseball* and *The Oregon Trail* for Apple Arcade during ideation and preproduction using C# and Unity
- Worked on *Zombie Anarchy* for mobile from ideation through to live ops using C/C++, Lua, and an in-house engine
- Developed and maintained a deterministic networked backend for *Zombie Anarchy* for deployment on Linux and Windows
- Designed and engineered a robust suite of unit tests for the core game mechanics and systems of *Zombie Anarchy*
- Independently led the technical development of four core gameplay loop and environmental prototypes using C# and Unity

Split Britches & Queensland University of Technology

Queensland, Australia

FULL STACK SOFTWARE ENGINEER

Nov 2013 - Dec 2014

- Designed, developed, and launched *Split Britches Theme Park* for iOS using XCode, Objective-C, and C/C++
- Administered and deployed a secure and cost effective LAMP web application using AWS, Route 53, S3, and EC2
- Engineered a REST API for communicating data between the iOS app and the web application
- Clearly communicated with the client to ensure the app met their evolving business needs and goals

Queensland University of Technology

Queensland, Australia

RESEARCH ASSISTANT (MATHEMATICS)

Nov 2013 - Feb 2014

- Developed efficient random walk simulations in C with Intel's Math Kernel Libraries and compiler
- Employed standard computational methods and probability theory to model several biological processes

RESEARCH ASSISTANT (COMPUTER SCIENCE)

Nov 2012 - Feb 2013

- Critically analysed and extended an existing ontology-based search algorithm for libraries
- Performed mathematical proofs to justify extensions made to existing search algorithms

Education

Bachelor of Mathematics / Bachelor of Information Technology

Queensland, Australia

QUEENSLAND UNIVERSITY OF TECHNOLOGY

Feb 2010 - Jun 2014

Majors: Software engineering and computational mathematics

Supplementary studies: Mathematical modelling, calculus, linear algebra, probability theory, statistics, full stack development

Course GPA: 7.0 (on a 7-point scale)

Industry Engagement

Games Connect Asia Pacific, Melbourne International Games Week

Victoria, Australia

SPEAKER & SOFTWARE ENGINEER

Apr 2023 - Oct 2023

- Pitched and delivered a talk on data-oriented programming, multithreading, and applying Unity's Data-Oriented Tech Stack to AI
- Developed an open source, multithreaded utility system decision maker using C# and Unity's Data-Oriented Tech Stack

Community Engagement

- 2024 **Panellist**, QUT CareerCon
- 2023-24 **Mentor**, Queensland Game Festival
- 2023-24 **Speaker**, Gameloft Brisbane Studio Tours
- 2023 **Speaker**, Games Connect Asia Pacific
- 2023 **Exhibitor**, QUT Science Career Expo
- 2023 **Speaker**, Big Day In at UQ
- 2022 **Mentor**, Game On 423
- 2022 **Speaker**, Game Development Deep Dive at QUT
- 2013-15 **Workshop Coordinator**, Hub Studio & Queensland University of Technology
- 2011-14 **Peer Learning Advisor**, Queensland University of Technology
- 2011-12 **Duty Tutor**, Queensland University of Technology