



# ROB MERRICK

GAME CREATOR, SOFTWARE ENGINEER

## CONTACT

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Sacramento, California

[GamehogStudio.com](http://GamehogStudio.com)

## EDUCATION

2015

IDAHO STATE UNIVERSITY

- Bachelor of Computer Science
- Mathematics Minor
- Advanced 3D Graphics Courses
- Assembly and Compilers Courses

## SKILLS

- Project Planning and Management
- Large Systems Design
- C#, C++, JavaScript, HTML, CSS, SQL
- Unity 2D/3D
- React, Canvas, Node.js
- Game Porting and Optimization
- Jira and other Kanbans
- Leadership
- Agile and SCRUM processes
- Technical Writing

## MATHEMATICS

- 3D Vector Math
- Linear Algebra
- Discrete Mathematics
- Calculus I, II, & III
- Differential Equations

## PROFILE

I am a full-stack software engineer and founder of my own gaming company called Gamehog Studio LLC. I have 10+ years of professional experience as a software engineer, which includes creating several mobile games from scratch and deploying them to the Apple App store and Google Play store. I've worked on all aspects of a game, including large C# frameworks to tie business logic together with a gameplay system that focuses on decoupling manager classes from the UI counterparts to ensure that a game is both scalable and portable. I've also authored my own programming language, which includes a complete IDE and a compiler that can translate the C-style code into an abstract syntax tree to parse the language and check for compilation errors and highlight the corresponding lines of code in the IDE. Check out some of my work at [GamehogStudio.com](http://GamehogStudio.com), which includes public repositories with some samples of my coding style, as well as live WebGL builds of some of my games that can be played in browser without having to install an app or download software.

## WORK EXPERIENCE

### Gamehog Studio LLC

2019 - PRESENT

Cofounder, Principal Software Engineer

- Founded a game company that creates mobile apps
- Conceptualized and created Au Diggers, an idle clicker tycoon game featuring beautiful solar systems with various planets to explore
  - Expected release in summer 2024
  - See samples online at [GamehogStudio.com](http://GamehogStudio.com)
- Created 10 Minute Sudoku, a simple sudoku app that generates random puzzles of varying difficulty with zero wait-time between puzzles
  - Puzzle generation works by brute force where a pair of numbers are placed in, then the abstract puzzle solver tries to solve the puzzle, giving it a score based on the difficulty of the techniques needed to solve it
- Created several games for game jam projects

### Artie

2023 - 2024

Senior Software Engineer - Gameplay

- Pioneered the app-less framework for a WebGL based game engine
  - Loads games on the fly without the need for downloading apps
- Optimized assets to run in browser on mobile devices
  - Decimating geometry
  - Reducing texture sizes
- Created Aaron's Air-run Adventure
  - 1 week of development
  - Pitched the game, company voted to implement it
  - Led a development team to create the game
  - WebGL playable demo available at [ArtieGameJam.itch.io](http://ArtieGameJam.itch.io)

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## NOTABLE COURSES

- Data Structures and Algorithms
- Compilers
- Computational Theory
- Assembly & Low Level Languages
- Advanced 3D Graphics
  - Created a 3D API from scratch
- Databases

## NERDY HOBBIES

- 8 bit adders in Minecraft
- Music Composition
- Sound Design
- Creating NTSC TV Signals with PIC32
- Computer Building
- Chess

## WILD HOBBIES

- Piano
- Indoor Skydiving
- Amusement Park Perusing
- Ziplining with Friends
- Camping and Swimming
- Leisurely Drives

## WORK EXPERIENCE

### Exploding Kittens

2022 - 2023

Senior Software Engineer

- Led a team to create an unannounced digital party game series, similar to Jackbox TV games
  - Rapid iteration & prototyping
    - Average of 1 prototype per 2 weeks
  - Vertical slice of a production game
  - Unity for the main screen and controlling gameplay logic
  - React.js with a full-screen web app for the phone view
  - Created Unity tools for the artists to hook in art assets
  - Mentored junior engineers

### Wildworks

2020 - 2021

Full-Stack Software Engineer

- Worked on a team to build an MMO called Feral
- Used Unity 3D as the game engine
- Balanced mini game difficulty for maximum enjoyment
- Pitched and created the physics-based gliding system
- Created the integration testing framework
- Optimized and ported the game from PC to mobile
- Guest hosted a letsplay livestream with the community manager

### Melaleuca

2017 - 2019

Full-Stack Software Engineer

- Maintained the company's online website to sell products
  - C# and SQL Server for the backend, JavaScript, HTML, CSS, and Razor Views for the front-end
- Maintained the company's internal software used by the store clerks to process local sales
- Trained interns and entry-level engineers on company techniques and general programming practices

### Governet

2015 - 2017

Full-Stack Software Engineer

- Used SQL databases as a CMS to generate dynamic websites for clients. Used C# with MVC structures and JavaScript to display the websites.
- Refactored an old report generation service to reduce technical debt and make release cycles more efficient
- Trained interns and entry-level engineers
- Restructured core parts of the SaaS system

### ISU Rise Complex

2014 - 2015

Software Engineer

- Created a UI for the nuclear engineering team in JavaFX so they could better research the process of neutron emission output unfolding
- UI had strict requirements where a given sample of data had to produce an exact output in both the GUI and text