

Software Engineer

Inspired programmer with 3 years of experience in PC, web, and mobile development emphasizing front-end apps and computer graphics. Proven leader driven by collaboration with multidisciplinary teams. Recognized for being versatile, outgoing, creative, and delivering quality code that is maintainable, extensible, and well-optimized.

EDUCATION

Bachelor of Science, Computer Science
California State Polytechnic University, Pomona, CA

Cum Laude
Major GPA: 3.6/4.0

EXPERIENCE

WAREPLAI | R&D Engineer (tiny.cc/arvadalabs) **01/2018 – Present**

Implementing augmented reality and core gameplay features using Unity with Vuforia.

- ◆ Created custom shaders to mask and project objects for seamless AR transition effects.
- ◆ Improved performance and memory efficiency on mobile devices by profiling and optimizing code base.
- ◆ Managed application submission and review process for Google Play and Apple stores.

BLIZZARD ENTERTAINMENT | Software Engineer Intern **06/2017 – 09/2017**

Developed a rich single-page web application using WebGL with React and Node.js.

- ◆ Created a 3D rendered display of large real-time data streams from Protocol Buffers over WebSockets.
- ◆ Solved a critical framerate issue, using object pooling and object-oriented patterns with WebGL.
- ◆ Executed detailed UX design and animation specifications with Javascript and CSS.
- ◆ Implemented responsive touch-screen gestures using Hammer.js.
- ◆ Collaborated directly with artists, program managers, and fellow engineers in an Agile/Scrum environment, utilizing JIRA and Confluence to coordinate tasks, Jenkins for CI/CD, and Git for code sharing and reviews.

GOOGLE APPLIED CS PROGRAM | Student Programmer (g.co/appliedcsskills) **04/2016 – 06/2016**

Created Android applications with Java and Android Studio as part of a pilot program for a select group of students that reinforces concepts from data structures and algorithms, as well as artificial intelligence.

PROJECTS

Augmented Realms | AR Tabletop Game Simulator (Android/iOS) **12/2017 – Present**

- ◆ Building editing tools for a procedural mesh grid shared live over a multiuser network. (Unity, C#)

inVRasion | VR Multiplayer Game (HTC Vive/PlayStation VR) **09/2017 – Present**

- ◆ Developing UI, AI, weapon physics, and player controls/movement using SteamVR and VRTK. (Unity, C#)

SimpleCraft | Custom Voxel Engine (PC) **09/2017**

- ◆ Implemented camera controls, collision detection, and terrain generation using Perlin noise. (OpenGL, Java)

Elemental Fury | VR Multiplayer Game (HTC Vive) **04/2017**

- ◆ Implemented combat mechanics, player controls, and client-side network using Photon/PUN. (Unity, C#)
- ◆ Won "3rd Place Overall" at BeachHacks 2017.

Battle of the Bards | Rhythm/RPG Game (PC) **02/2017**

- ◆ Created UI, turn-based mechanics, procedural audio, and particle systems. (Unity, C#)
- ◆ Won "2nd Place Overall" and "Best Game Hack" at HackPoly 2017.

LEADERSHIP

Student Game Developer Alliance | Founder, Committee Chair (sgda.io) **02/2017 – Present**

Founded the largest student-organized game development association in California, dedicated to facilitating game development for 200+ students from 9 universities by organizing educational events and competitions.

Cal Poly Pomona Game Design & Development Club | President **03/2016 – 06/2017**

Lead a new student club focused on enabling students to grow technical and teamwork skills through game development, mentoring 60+ members and coordinating large studio-like teams of multidisciplinary students.

TECHNICAL SKILLS

Languages: C# ◆ C++ ◆ Java ◆ JavaScript ◆ Python ◆ HTML/CSS

Tools: Unity ◆ GIT ◆ OpenGL/DirectX ◆ Visual Studio ◆ WPF/WinForms ◆ .NET ◆ React ◆ Android Studio

Concepts: 3D Graphics/Math ◆ UI Implementation (MVVM) ◆ Mobile (Android/iOS) ◆ AR/VR ◆ Agile/Scrum

◆ Object-Oriented Patterns ◆ Memory Management ◆ Computer Networks ◆ Debug Testing/Profiling