

SUMMARY

I am a lifelong game developer and software engineer with over eight years of industry experience. Having taught myself programming from a young age – I have worked on everything from embedded hardware systems to full stack web development. I am constantly seeking unique ways to combine my experience as a game developer with my curiosity for real-world problem solving and engineering.

SKILLS

• C++ • Unreal Engine • Python • JavaScript • C# • XR (VR/AR/MR) • Unity • Real-time Rendering

WORK EXPERIENCE

Staff Software Engineer

Nov 2021 – Current

Boeing – Full-Time – Hybrid (St. Louis, Missouri)

- Experience leading multiple international development teams of 30+ engineers and artists.
- Technical lead engineer and software architect for 60+ enterprise projects and research initiatives.
- Led the development of an Unreal Engine 5 based C++ SDK and integration API for digital twins.
- Led the development of an enterprise-wide software as a service solution (SaaS) using WebRTC.
- Software architect over digital twins and real-time rendering technologies portfolio at Boeing.

Active Security Clearance: United States Secret

Skills: Unreal Engine, C++, Python, JavaScript, WebRTC, Distributed Systems, Real-time Rendering

Senior Software Engineer

Jul 2020 – Nov 2021

Boeing – Full-Time – Remote (St. Louis, Missouri)

- Experience leading a remote development team of 10+ software engineers and artists.
- Experience as a technical artist, embedded engineer, systems engineer, and full stack developer.
- Led the development of digital twin technologies for immersive training, interactive vehicle platforms, distributed software systems, and internal engineering solutions using C#, C++, and Python.
- Managed the development of 16 digital twin products built in Unreal Engine 5 for immersive training and real-time flight simulation deployed onto virtual reality and mixed reality training devices.

Skills: Unity, C#, Unreal Engine, C++, Python, Virtual Reality (VR), Mixed Reality (MR), Systems Engineering

Software Engineer

May 2019 – Nov 2021

Boeing – Full-Time – On-site (St. Louis, Missouri)

- Software engineer for Boeing Research and Technology developing technologies for immersive training, interactive simulation, and internal engineering solutions in Unreal Engine and Unity.
- Experience developing software for avionics hardware, virtual reality systems, motion platforms, embedded ESP32 micro controllers, lighting and display systems using C++ and Python.
- Experience developing flight simulation technologies utilizing hardware emulation and MBSE.

Skills: Unity, C#, Unreal Engine, C++, Python, Virtual Reality (VR), Embedded Systems, Flight Simulation

References available upon request.

Founder | Game Developer

Aug 2018 – Nov 2021

Lightmass Games LLC – Self-Employed – Remote (St. Louis Missouri)

- Solo developed a game in Unity with C#, publicly released, and sold on Steam.
- Learned how to make my own music, sound effects, VFX, and 3D models from scratch.
- Attended conferences to market my game, designed merch, banners, business cards, and built an embedded hardware controller to sync real life VFX with live game UI and particle systems.

Skills: Unity, C#, Unreal Engine, C++, Python, Virtual Reality (VR), Embedded Systems, Flight Simulation

Full Stack Developer

Jan 2018 – Sep 2018

Yost Labs – Internship – On-Site (Portsmouth, Ohio)

- Full stack developer for yostlabs.com creating an increase in website traffic and sales by 30%.
- Web development experience with JavaScript, React.js, Bootstrap, HTML, CSS, and WordPress.
- Assisted the software engineering team with front-end development for Electron.js applications.

Skills: JavaScript, React.js, Bootstrap, HTML, CSS, Full Stack Development, Web Development

Software Engineer

May 2016 – Jul 2017

Yost Labs – Internship – On-Site (Portsmouth, Ohio)

- Developed an embedded geospatial tracking system with GPS and IMU modules. Using dead reckoning, sensor fusion, BLE and UWB technologies as well as programming in Python and C++.
- Worked with drones and robotic systems for sensor application and environmental data collection.
- Worked on the development of a custom Node.js based calibration software using Electron.js.

Skills: Python, C++, JavaScript, Node.js, Electron.js, Research and Development, Embedded Systems

EDUCATION

Shawnee State University

Aug 2015 – May 2019

Bachelor of Science in Digital Simulation and Gaming Engineering Technology (BSCS) (GPA: 3.0)

Computer Science degree with a focus on game development, design, and engineering technologies.

- Employed as a student ambassador, student teacher, and commencement marshal.
- Student intern working with professors and local businesses to develop collaboration opportunities.
- Award winning finalist for Global Game Jam 2018 & 2019 for best graphics and people's choice.