William Clark

Software Developer

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Portfolio | Linkedin

SUMMARY OF QUALIFICATIONS

- Proficient in 3D development with ephasis on real-time systems, levaraging game engines and programming expertise in C++, C#, JavaScript and Python
- Skilled in project management and team leadership, including experience in hiring, team-building, and setting measurable project benchmarks.
- Demonstrated expert-level troubleshooting and debugging skills across hardware and software platforms, with a provern record of mission-critial issue resolution
- Foundational knowledge in React, REST Api and machine learning in addition to active pursuit of a Bachelor's of engineering degree in Software Development

EDUCATION

BACHELOR OF ENGINEERING | Software Engineering | Oregon State University   2023-2025

      GPA: 3.85 **Relevant Coursework:** Data Structures, Web Development, Discrete Math, Python I and II, Assembly x86

MASTER OF ARTS | Music Technology Innovation | Berklee College of Music   2013-2014

BACHELOR OF ARTS | String Bass Classical Music Performance | San Francisco Conservatory of Music   2008-2012

PROGRAMMING PROJECTS

- **React Three Fiber Portfolio:** I emplored my skills as a 3D generalist to create a personal portfolio with interactive, 3D elements and custom UI. My tech stack to achieve this was React, Vite, Three.js, Node.js, Tailwind, Motion Tracker, JavaScript, CSS, AWS EC2 and more! Visit the site for more information: https://www.willclark.guru/
- **REST Database App:** To demonstrate my understanding of Full-Stack Mern development I made an example website to track exercises. I created a RESTful Api to handle requests from my React app, to store user data in a MongoDB database that I connected to my app. I then hosted the site on an AWS S3 bucket and used SSH to get it running.
- **Robo Bot:** Developed an AI-powered assistant prototype for Cal-Hacks hackathon, utilizing Unity, Gemini AI and the Meta XR SDK, for a conversational, AI assistant.
- **Bass Bot:** Designed and built a monophonic synthesizer using C++ and the Juce framework, showcasing modular design and integration of custom audio DSP algorithms.
- **Touch Designer Visuals:** I have created a large collection of cross-functional, real-time video compositions and audio visualizers using OpenGL, Python and C# that can be loaded, played back and manipulated in real-time. This project was developed over a 15-year career as a professional video operator for premiere music performances and events.

TECHNICAL SKILLS

- **Languages:** Python / C++ / C# / JavaScript / x86 Assembly / CSS / HTML5 / TypeScript
- **Frameworks:** JUCE Audio / Android Studio / React / Node.js
- **Libraries/APIs:** REST / Express /Vite / TensorFlow / Pandas / MatPlotLib / Android Studio / iOS SDK / Nvidia AR / Unity AR / Meta XR / Open AI
- **Software Development:** Git / Databases / Docker / Linux / Machine Learning/ AI / Web Development / Visual Studio / Xcode / AI Training / Bug Tracking
- **Computer Hardware:** Enterprise Systems / Server Design and Build / Network Attached Storage / Windows Server / Embedded Software design / Cloud Compuiting
- **Real-Time Software:** Unity / Unreal / Wwise / Touchdesigner / Notch / Resolume
- **3D Softwares:** Cinema 4D / Blender / After Effects / Vectorworks / AutoDesk / Prusa

WORK EXPERIENCE

Audio Visual Artist / Server Technician | Colour Feeders (https://ColourFeeders.com/), San Francisco, CA   07/2016-Present

- Led the development of multi-node, enterprise servers with a total build value exceeding $500,000, managing systems for real-time video playback and data-intensive media processing using Touchdesigner, Python automation tools, C++, and Windows Server.
- Engineered complex networked audio-visual systems for large-scale, synchronized installations, demonstrating expertise in enterprise-level hardware and software networking infrastructure.

Video and Lighting Manager | The Midway SF (https://theMidwaySF.com/) , San Francisco, CA   04/2017-2023

- Leveraged my network and communication skills to form and manage a team of over a dozen high-level, engineers to assist in the operation of a large size events venue, with over 200 diverse events each year
- Designed and implemented state-of-the-art infrastructure for high-profile events, including multi-node enterprise servers and real-time 3D video systems
- Collaborated on real-time applications using Python, C#, and TouchDesigner, integrating audio and visual systems for audiences exceeding 10,000

Instructor of Audio Technology | Pyramind Institute (https://Pyramind.com/), San Francisco, CA   02/2016-08/2024

- Taught advanced courses on software engineering, in-game development and audio-visual tools, including Sound Design for Video Games using Wwise and C#, and Synthesis & Sound Design using custom audio DSP in Reaktor

IT Assistant | Berklee College of Music (https://Valencia.Berklee.edu/), Valencia, Spain   08/2013-08/2014

- Assisted in managing IT systems, troubleshooting macOS, iOS and Windows environments, with responsibilities including network infrastructure upgrades managing user accounts through system admin privileges and maintaining regular help-desk hours