William Clark

Software Developer

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Portfolio | Linkedin

Motivated software developer, skilled in developing web applications and working with databases. With a keen interest in expanding expertise in data science, DevOps, and network management., and a strong foundation in computer graphics, audio signal processing, and software engineering. Adept at developing front-end and back-end solutions with a focus on delivering high-quality, efficient, and heuristic designs. Eager to contribute technical skills to innovative projects, build professional experience, and grow within the software development field.

EDUCATION

BACHELOR OF ENGINEERING | Software Engineering | Oregon State University · 2023-2026

GPA: 3.9 | **Relevant Coursework:** Databases, Algorithms, Data Structures, Web Development, Discrete Math, Python, 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

CERTIFICATIONS

Coursera:

Mathematics for Machine Learning: Linear Algebra	**Imperial College of London**	2024
Front-End Developer Certification (React)	**Meta**	In Progress

PROGRAMMING PROJECTS

- **React Three Fiber Portfolio:** I employed 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, Tailwind, Framer Motion, JavaScript, CSS, AWS EC2, Cloudflare 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 Synthesizer:** Designed and built a monophonic synthesizer using C++ and the Juce Audio framework, showcasing modular design of custom audio DSP algorithms.
- **Interactive 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 / TypeScript / x86 Assembly / CSS / HTML
- **Frameworks:** React / RESTful api / React Three Fiber / React Native / Node.js / JUCE Audio DSP / Android Studio
- **Libraries:** Tailwind / Framer Motion / Express / Vite / TensorFlow / Pandas / Matplotlib / Android Studio / iOS SDK / Nvidia AR / Unity AR / MetaXR
- **Other Programming Skills:** Git / Databases / Docker / Linux / Machine Learning / Web Development / Bug Tracking / Pycharm / Visual Studio / Xcode / AI Training
- **Computer Hardware:** Enterprise Systems / Server Design and Build / Network Attached Storage / Windows Server / Cloud Computing / Nvidia G-sync
- **Other Technologies:** Unity / Unreal / Wwise / Touchdesigner / Notch / Resolume / Cinema 4D / Blender / Davinci / After Effects / Vectorworks / Prusa (3d Printing)/ Pro Tools / Ableton / Bitwig / Reaktor / VCV Rack / Wordpress / Excel / Google Workspace / Figma / Adobe CC

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, 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 audio engineering, in-game development and audio-visual tools, including Sound Design for Video Games using Unity, Wwise and C#, Sound for film where I instructed in Dolby surround sound formats using Pro Tools, and Synthesis & Sound Design using custom audio DSP in Ableton, Reaktor and C++ using Juce.

Instructor of Audio Recording Arts | SAE Expressions college (**https://usa.SAE.edu/**), Emeryville, CA · 02/2015-06/02017
- Instructed students in all aspects of audio technologies, digital and analog, and guided them to success in the audio industry.
- Classes Taught include: Sound Design for Video Games (Wwise), Sound for Film (ProTools), Synthesis & Sound Design (Ableton & Reaktor), Large Format Studio Operation (Avid S6, Neve), Surround Sound Formats (Dolby), Mixing for Music (ProTools), Music Production History, Live Sound