

# William Clark

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**Software Engineer** with a strong foundation in **full-stack, web-application development, DevOps** and **Signal Processing**. Proficient in Python, C++, JavaScript, and SQL database management. Seeking to contribute technical expertise to a junior, entry level or intern engineering position.

## EDUCATION

**Bachelor of Engineering** | Computer Science | 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 2012-2014

## TECHNICAL SKILLS

**Languages:** Python, C++, JavaScript, TypeScript, C#, SQL, x86 Assembly, HTML, CSS  
**Software Development:** Algorithms, Data Structures, Software Architecture, Debugging, Code Review, Agile Development  
**Web Development:** React, Node.js, RESTful APIs, Express.js, MongoDB, SQL, Tailwind, Framer Motion  
**Cloud & DevOps:** AWS (EC2, S3, Aurora), Docker, Firebase, CI/CD Pipelines  
**AI & Data Science:** TensorFlow, Pandas, Matplotlib, Linear Algebra, Deep Learning  
**Other Skills:** Git, Linux, JUCE (Audio DSP), Unity, Unreal Engine, Wwise, Blender

## WORK EXPERIENCE

**Technologist / Systems Architect** | Colour Feeders LLC, San Francisco, CA 2016-Present

- Constructed high-performance **computing clusters** for use in real-time audio-visual systems, high-density projection mapping and a 3D video rendering farm for digital media-based art gallery, **Artehouse**. View their work on [Instagram](#)
- Programmed custom **automation scripts** in **Python** and **C++** for real-time multimedia processing while reducing manual workload by 50%.
- Led full-stack development of interactive installations leveraging **Node.js, React, and OpenGL** framework.
- Collaborated with high-level Unity developers to build large-scale interactive art pieces for **Code: Art** digital art festival in Palo Alto.
- Wrote over 100+ unit tests in **Pytest** to probe durability of installations.

**Multimedia Software Engineer** | The Midway SF, San Francisco, CA 2017-2023

- Developed real-time applications in Python, C#, and OpenGL, integrating AV systems for events with 10,000+ attendees.
- Managed a team** of engineers to develop and maintain server infrastructure supporting 200+ annual events.
- Established complex **networking protocols** of audio-visual systems for **signal processing** and remote control of real-time systems reducing operator work force requirements by 30% for some events.
- Designed and implemented networked computing environments for multimedia installations using **Windows Server, Nvidia G-sync, Docker, and Linux** with hardware value exceeding \$50,000.
- Created interactive video content using **Unity, OpenGL** and TouchDesigner in **C++/C#** incorporated into custom stage designs in CAD for high profile clients in the music industry.

## PROGRAMMING PROJECTS

**Full-Stack Web-Application (SQL, Express, React): Chromatic Music Store** | [View on Github](#)

- Created an SQL database for a music store using **MySQL** and writing custom **SQL** CRUD operations.
- Implemented front-end with **React** and **Prime React** component library for faster and more functional development in three days.
- Features include inventory management, employee records management and invoice management.
- Back-end created with custom **SQL** and **Express** for connecting to the **AWS Aurora** database with ability to scale rapidly.
- Front-end Hosted on **AWS EC2** ensuring performance and scalability optimization.

**React Three Fiber Web-Application: Portfolio** | [View Live Project](#)

- Constructed a 3D interactive portfolio using **React, Three.js, and Tailwind**, allowing seamless content updates and interactive navigation
- Implemented procedural 3D components in **JavaScript** for dynamic UI elements allowing me to update my portfolio in seconds.
- Deployed on **Cloudflare** with **Node.js** for optimized security, performance and scalability.

## ADDITIONAL INTERESTS AND CERTIFICATIONS

**AWS Cloud Practitioner Essentials** | AWS 2025  
**Mathematics for Machine Learning: Linear Algebra** | Imperial College of London 2024  
**Wavetable Synthesizer:** Full-stack wavetable synthesizer using **C++** and **JUCE**, with custom audio signal processing, and a modern GUI Mar. 2024  
**Hackathons & Competitions:** Created RoboBot, an AI Assistant, web AR app using **Unity, Gemini AI, and Meta XR**, for Cal-Hacks. Dec. 2024  
**Game Jam Winner:** Used **Unity** and **C#** to program and racing game and won first place with over \$1000 in prizes. Feb. 2023