# William Clark

+1 (415) 930-0178 | WillSJClark@gmail.com | LinkedIn | Website

# PROFESSIONAL SUMMARY

**Full-Stack Software Engineer** with a strong foundation in **Web-applications**, **AI** and **Audio Signal Processing**. Proficient in Python, C, TypeScript, and SQL database management. Seeking to contribute technical expertise to an SWE position.

# **EDUCATION**

Bachelor of Engineering | Computer Science | GPA: 3.9

Oregon State University

2026

Remote

2014

Master of Arts | Music Technology Innovation

Berklee College of Music

Valecia, Spain

# WORK EXPERIENCE

# **AV Systems Engineer / Software Engineer**

Colour Feeders

Jan 2016 – Present

- Developed in Python and C++ / C# for real-time multimedia processing and remote automation of processes.
- 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, Artechouse: View their work on <u>Instagram</u>
- Led full-stack development of interactive installations, leveraging Unity, Node.js, React, and OpenGL frameworks

#### **Instructor of Audio Recording Arts**

Feb 2015 - Jun 2017

SAE Institute: Expressions Campus

Emeryville, CA

- Instructed in +2,000 hours of collegiate-level coursework in advanced digital signal processing, and audio engineering.
- Designed and developed 10+ courses, including Synthesis, DSP, Surround Sound, and Game Audio using Unity, Wwise, and C#.
- Delivered expert instruction in real-world studio workflows, broadcast, large-format console operation, synthesis, sound design, and audio post-production for film and interactive media.

# **PROJECTS**

# Gen Beats | Full-Stack, Generative Al App | Github

Dec 2024 - Ongoing

- Developed a generative AI music web app for streaming real-time, original, genre-specific music.
- Built a React frontend using MaterialUI and Tone.js for automated, audio signal processing and UI interaction.
- Integrated Meta's MusicGen model with Transformers and PyTorch with CUDA for GPU-accelerated inference.
- Deployed the backend on AWS EC2 using Conda for scalable, low-latency performance.

# Chromatic Music DB | Full-Stack, Web-Application | Github | Live

Feb 2025

- Created an SQL database for a fictitious music store using MySQL and writing custom CRUD operations.
- Implemented front-end with **React** and Prime React component library for faster development.
- Back-end created with Node.js, Express custom SQL for connecting to the AWS Aurora database.

# Midway SF Creative Complex | AV System Architecture Design | Visit Site

Mar 2017 - Dec 2024

- Established advanced technology systems, engineering teams, and AV operations for a large-scale creative event venue
- Built complex, interconnected systems for lighting, audio, video and computer networking. Est. budget over \$3 million.
- Designed and implemented multi-node, server-based computing environments for digital multimedia installations.
- Created video, and real time-3d, interactive content for music performances and interactive media installations

# TECHNICAL SKILLS

Languages: Python, C++/C/C#, JavaScript, TypeScript, SQL, Assembly, HTML, CSS, SQL

Frameworks: React, Flutter, Node.js, FastAPI, Flask, Express.js

**Developer Tools:** Git, GitLab, Docker, Visual Studio, PyCharm, Colab, AWS, Firebase, CloudFlare, CI/CD **Libraries:** PyTorch, TensorFlow, Matplotlib, JUCE, Three.js, Tone.js, AudioCraft, Framer Motion, Material UI