

William Clark

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PROFESSIONAL SUMMARY

Full-Stack Software Engineer with a strong foundation in **Software Development**, **Machine Learning** and **Digital Signal Processing**. Seeking to contribute technical expertise to an engineering position.

EDUCATION

Bachelor of Engineering | Computer Science | GPA: 3.9
Oregon State University

expected March 2026

WORK EXPERIENCE

Software Engineer Intern

March 2025 – Present

Stealth Startup,

Remote

- Partnering weekly with a founding engineer to explore web app infrastructure including **React**, **Fast API**, and **Figma**.
- Gaining hands-on experience with real-world development workflows, information security, and deployment strategies
- Participating with design and technical discussions to deepen understanding of modern web frameworks and tools.

AV Systems Architecture | Software Engineer

Jan 2016 – Present

Colour Feeders | [Website](#)

San Francisco, CA

- Built **Python** and **C++ / C#** tools for real-time multimedia processing and infrastructure management and troubleshooting.
- Constructed high-performance computing clusters with Super Micro, Intel CPUs and enterprise Nvidia GPUs, for use in **real-time** audio-visual systems and 3D video rendering in digital media-based art galleries and interactive installations.
- Led full-stack development of interactive installations, leveraging **Unity**, **Node.js**, **React**, and **OpenGL** frameworks.

PROJECTS

Gen Beats | Full-Stack Developer, Generative AI App | [Github](#)

Dec 2024 – Present

- Engineered a full-stack web app that streams real-time, AI-generated music tailored to user-selected music genres.
- Built a responsive **React** frontend integrated with **Tone.js**, for automated, audio signal processing and UI interaction.
- Trained a custom **PyTorch** model with **CUDA** for fast, GPU-accelerated inference.
- Deployed the **Fast API** backend on **AWS EC2** with **Conda** environment management, ensuring low-latency, scalable performance under concurrent user load.

Chromatic Music DB | Full-Stack Developer, Web-Application | [Github](#) | [Live](#)

Feb 2025

- Engineered a full-stack music store app with a **MySQL** database and custom SQL-based **CRUD** operations.
- Built a dynamic **React** frontend using **Prime React** for rapid UI development.
- Developed a **Node.js + Express** backend with direct SQL queries, connected to **AWS Aurora**.

Sue Chef Cooking App | UX Design and Researcher in Figma | [Prototype](#)

Jan 2025

- Designed a comprehensive cooking and social platform prototype in **Figma**, integrating AI for personalized recommendations.
- Conducted in-depth UX research, including interviews, surveys, and **heuristic evaluations** to drive user-centric design
- Authored a detailed **research** paper analysing behavioural insights and usability metrics informing key UX decisions.

Boutique Audio Synthesizer | Full-Stack Developer, C++ VST3 Plugin | [Visit Site](#)

Feb 2024

- Designed and created a boutique **VST3** synthesizer, plugin for use in software hosts such as Ableton or **Unity**.
- Developed custom wavetable, wave-shaping, and convolution **algorithms** in C++ using **JUCE** for optimal performance.
- Built a **GUI** with procedural elements for easy scalability and real-time audio parameter control.

TECHNICAL SKILLS

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

Web-Application Frameworks: React, Flutter, Node.js, FastAPI, Flask, Express.js

Developer Tools: Git, Docker, Visual Studio, PyCharm, AWS, Firebase, CloudFlare, TCP/UDP, CI/CD, PostgreSQL, MySQL

Libraries: PyTorch, TensorFlow, Matplotlib, JUCE, Three.js, Tone.js, Transformers, TailWind, Framer Motion, Material UI

Coursework: Algorithms, Data Structures, Databases, Web Dev, Discrete Math, Linear Algebra, Assembly x86, Operating Systems