**Zane Garvey**

[Zanegarvey503@gmail.com](mailto:Zanegarvey503@gmail.com) | <https://www.zanegarvey.dev/> | [www.linkedin.com/in/zane-garvey/](http://www.linkedin.com/in/zane-garvey/) | <https://github.com/HackerManOSU/>

# **Projects**

**Oddsly** – Comprehensive full-stack sports betting odds tool for real-time odds aggregation and analysis | [Website Link](https://oddsly.vercel.app/) **11/2024**

***Technologies****: Next.js, Vite, React, Firebase, Stripe, Typescript, Vercel, CI/CD, MUI, TailwindCSS, REST APIs*

* Implemented Firebase NoSQL for real-time database management, achieving 99.9% uptime
* Integrated REST APIs to aggregate real-time odds data from multiple bookmakers, achieving API response times optimized by 40%, ensuring updates within 2 seconds for high-volume queries
* Developed subscription-based payment workflows using Stripe, enabling secure and scalable transactions capable of handling 100+ concurrent payments per second, adhering to PCI compliance standards.
* Optimized performance and scalability using enterprise-scale architecture principles, reducing backend processing times by 50% and ensuring maintainability through modular code and robust error handling.

**Guitar Hub** – All-in-one guitar enthusiast tool, 2024 Oregon State Hackathon Winter | [GitHub Repository](https://github.com/HackerManOSU/OSUHackathonWinter2024) **01/2024**

***Technologies****: JavaScript, HTML, CSS, OpenAI Chat GPT API, Hugging Face Models*

* Constructed a guitar tuner from scratch, utilizing pure JavaScript without the aid of external libraries. Applied

mathematical formulas directly to analyze audio frequencies and accurately determine musical notes

* Developed a song recognition tool writing an audio input script in JavaScript, integrating OpenAI's GPT-4 model

for audio-to-text conversion, followed by a training algorithm to match lyrics with similar songs.

* Created a dynamic web application that generates SVG chord diagrams for various string instruments. Utilized asynchronous JavaScript to fetch and display chord data based on user-selected instrument and chord type.
* Incorporated two Hugging Face models to identify chords and genres from audio files. Designed the interface to display these analyses.

# **Education and Certifications**

**Oregon State University – B.S. Applied Computer Science, Minor – Psychology, In Progress** | 3.95 GPA, Dean’s List **2022 – 2026**

* Relevant coursework – Computer Architecture and Assembly Language, Analysis of Algorithms, Data Structures

and Algorithms, Software Engineering 1 & 2, Operating Systems 1, Databases, Intro to Networks

**Google Cybersecurity Certificate** – Bash, Linux, Google Chronicle, Suricata, Splunk, Wireshark, TCPDump | [Verification](https://www.credly.com/badges/4d04cbca-b867-4997-ab0e-b39b00e379eb/public_url) **2024**

**AWS Certified Solutions Architect** – In Progress **2024**

# **Experience**

**University Events Audio Engineer**– Oregon State University, UIT **10/2024 – Present**

* Mixed and produced audio for live events attended by thousands of fans, ensuring high-quality sound for

both in-person audiences and recorded broadcasts

* Collaborated with marketing teams, directors, and event coordinators to synchronize audio production with

event objectives and promotional activities

* Troubleshot technical issues in high-pressure environments, minimizing downtime during live events

**University IT Support and Technician** – Oregon State University, UIT **02/2024 – Present**

* Completed Tier 1 tasks over support to instructors/professors having technical difficulties
* Assisted with Tier 2 tasks installing new technologies and updating hardware in classrooms
* Remotely accessed classroom technology, utilizing Crestron Fusion, ConnectWise, OvrC, and Direct IP Access
* Created and logged tickets in TeamDynamix to track issues and keep tabs over time

**Maintenance Engineering Assistant** – Immigrant and Refugee Community Organization **06/2023 – 02/2024**

* General construction – plumbing, framing, finishing, demolition
* Full Kitchen remodel project

# **Technical Skills**

* **Languages/Mark Up Languages**: JavaScript, CSS, Python, R, C, C++, HTML
* **Developer Tools/Software**: Microsoft Visual Studio Code, VIM, Nano, BASH, VS Code, Git, Github, JupyterLab, Figma, Microsoft Suite, XCode, Google Chronicle, TCPDump, WireShark, Suricata, Splunk

# **Extracurriculars**

* MECOP Student Advisory Board