Brian James

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Skills

- Languages & Tools: Python | C++ | Java | JavaScript | Git | Unit Testing | OOP
- Web/Software: Node.js | Express.js | React | Flask | SQLite | MongoDB | Tkinter | HTML/CSS
- Data Science & ML: Pandas | NumPy | Matplotlib | Scikit-Learn | Seaborn | Power BI | SQL
- Areas: Full-Stack | Frontend | Backend | Data Science | Microservices | Cybersecurity

Education

Bachelors of Science Computer Science – Oregon State University

• Relevant Coursework - Applied AI and Deep Learning, Applied Machine Learning, Applied Data Science, Data Structures & Algorithms, Computer Networks, Operating Systems, Cloud Application Development, Mobile Software Dev, Open Source Software.

AWS Certified Solutions Architect Associate Certification SAA-C03

Projects _

BookieBot

Autonomous Al Finance Agent

Solo Project

05/2025 - 06/2025

Expected: December 2025 | GPA 3.8

- Designed and implemented an autonomous agentic AI finance chatbot that enables users to log, query, and visualize monthly expenses using natural-language commands.
- Developed 30+ intents for analytics (spending breakdowns, projections, no-spend streaks), with multi-user, role-based workflows.
- Tech stack: Python, Discord.py, OpenAI API, Google Sheets API, Railway, Asyncio, Matplotlib

SkinPro

Full-Stack Desktop Application

Contractual

02/2025 - 04/2025

- Designed and developed a full-stack desktop application for a day spa, managing 300+ client records and 2,000+ appointments, saving 1,000+ hours/year of manual work and \$3,000+ in software costs.
- Collaborated with the spa owner to define requirements, prioritize features, and refine the app around daily business operations.
- Integrated a QR-based mobile photo upload system and dynamic PDF prescription generator, reducing photo management time by 90% and supporting customizable skincare routines.
- Built modern, responsive UIs with Tkinter and a local SQLite database with weekly backups, saving \$500+ per year on cloud costs.
- Tech stack: Python, SQlite, Flask, CustomTkinter, ReportLab, PIL

NES Emulator

Cycle-Accurate Emulator

5-Person Team

09/2024 - 06/2025

- Engineered a cycle-accurate NES emulator, particularly the APU and CPU components, achieving authentic timing, >95% test coverage, and leading a full-scale system refactor resolving 25+ platform-specific bugs across Linux, macOS, and Windows.
- Optimized and validated 40+ unit tests for CPU instruction accuracy, memory reads/writes, and interrupt handling, achieving over 95% instruction test coverage.
- Led development through Trello workspace boards and Discord, ensuring consistent progress tracking, effective task delegation, and streamlined team communication.
- Tech stack: C++, SDL2, Dear ImGUI

Task Checklist

Full-Stack CRUD Website (MERN)

Solo Project

03/2024 - 06/2024

- Built a responsive full-stack website with full CRUD functionality using the MERN stack.
- Designed and implemented user-friendly React components, connected to a Node.js/Express backend with MongoDB for storage.
- Tech stack: Javascript, MongoDB, Express.js, React, Node.js, HTML/CSS

Notable _

- Designed and programmed an automated live sound & lighting system (70+ fixtures) using Python and Showbuddy, creating
 100+ custom lighting scenes synchronized to instruments and vocals, reducing tour crew costs by \$5,000+. (Video-Link)
- o Independently engineered and programmed the automated lighting system, coordinating nightly with venue lighting directors and stage crews to ensure seamless integration and flawless execution under time-sensitive circumstances.
- Touring Musician/Composer: Played lead guitar in the band "Fallujah" signed to Nuclear Blast Records.

• Touring Musician/Stage Engineer: Played lead guitar in the band "Entheos" signed to Metal Blade Records.

12/2021 - 01/2024