Jessen Forbush

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EDUCATION

B.S. Software Engineering   Anticipated: July 2026
Brigham Young University — Idaho   *Rexburg, Idaho*
- Pursuing a minor in Computer Science and certificates in Software Design, Quality Assurance, and Database
- Earned the BYU-Idaho Scholarship for maintaining a 3.95 GPA

TECHNICAL SKILLS

- **Programming Languages:** C++ (Advanced: OpenGL, simulation physics, algorithm optimization), Python (Proficient: data structures, automation, script development), C# (Proficient: OOP, applications, code analysis)
- **Methodologies:** Object-Oriented Design (class hierarchies, encapsulation), Test-Driven Development (unit testing, verification), Functional Programming (Basic: pure functions, immutability), System Architecture (component design)
- **Web Technologies:** JavaScript/HTML/CSS, React (components, basic state management), Node.js (server-side fundamentals), Git/GitHub (version control, repositories, collaborative development)
- **Cloud Services:** Vercel (deployment, hosting, continuous integration), Supabase (authentication, database connectivity), API Integration (Basic: RESTful services, data exchange fundamentals

PROJECTS

- **M777 Howitzer Simulator** — Developed a precision artillery simulation system modeling complex ballistic trajectories and environmental factors, implementing mathematical algorithms to ensure accuracy in trajectory calculations and physics interactions applying C++ and OpenGL
- **Apollo 11 Simulator** — Engineered a high-fidelity lunar landing simulation implementing real-time physics calculations and atmospheric variables affecting trajectory, leveraging C++ and OpenGL for optimized performance while maintaining computational accuracy
- **Nebula Fighters** — Collaborated with teammates to develop a space-themed arcade game using the Godot Engine, contributing to gameplay mechanics and graphic implementations while maintaining consistent version control through GitHub
- **Sketchy** — Built an intuitive iPadOS drawing application in Swift, incorporating responsive touch controls and efficient drawing mechanics while focusing on user experience and interface design

EXPERIENCE

Online Grader — Software Engineering Department   September 2023 — Present
BYU—Idaho   *Rexburg, Idaho*
- Conduct systematic code reviews of C# programming assignments, implementing standardized quality control processes to evaluate algorithm efficiency and code structure
- Utilize GitHub and Visual Studio Code to provide detailed technical feedback, identifying potential optimizations and suggesting implementation improvements to enhance student project outcomes
- Collaborate with faculty to apply assessment criteria aligned with industry best practices, ensuring students gain practical software engineering skills applicable to real-world scenarios

Concrete Laborer   Every Summer from 2018 — 2022
Northwest Concrete & Landscape LLC   *Caldwell, Idaho*
- Executed complex construction tasks with a 5+ person team, meeting rigid quality standards and strict project timelines in a fast-paced construction environment
- Developed systematic approaches to troubleshoot on-site challenges, identifying efficient solutions to unexpected material and equipment constraints
- Established effective communication protocols within a diverse team during high-precision concrete installations requiring exact timing and coordination

VOLUNTEER EXPERIENCE

- Missionary Service, Brazil & Idaho (2023) — Developed Portuguese fluency, led community service initiatives
- Eagle Scout Award (May 24th, 2021) — Planned and executed a community improvement project, managing timeline, budget, and a team of 12+ volunteers while demonstrating leadership, project planning, and resource allocation skills