

Genesis Tyndall

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Summary

Software Engineer with experience developing and validating complex systems in highly regulated environments. Proficient in C++, Python, and JavaScript, with a strong background in backend development, automation, and hardware/software integration. Passionate about crafting innovative tools, collaborating across disciplines, and building engaging user experiences.

Experience

Avionics Electronic Systems Design Engineer

Boeing Commercial Airplanes - Seattle, WA | 2022 – 2024

- Designed and validated avionics systems supporting critical alerting functions across multiple hardware/software platforms.
- Developed and automated C and proprietary-language test scripts to run hundreds of regression tests per release.
- Collaborated across engineering teams and external suppliers to troubleshoot and resolve integration issues under tight timelines.
- Authored requirements for a frontend tool managing complex data workflows, improving cross-team collaboration and usability.
- Performed debugging and optimization in real and simulated hardware environments.

Assistant Information Management Specialist

Wisconsin Department of Natural Resources - Madison, WI | 2021

- Automated routine IT processes with PowerShell scripting, increasing efficiency and reducing manual workloads.
- Provided technical support in a multi-site networked environment, resolving software and hardware issues for internal teams.
- Updated documentation and workflows, improving onboarding and issue resolution.

Projects & Open Source Contributions

- Sidescroller Game Demo: Programmed physics and motion systems in Unity/C++, collaborating with a distributed team of artists and developers.
- Generative Art Installation: Created interactive visual animations using P5.js and physical controllers.
- Custom MIDI Controllers & Firmware: Developed C-based firmware for USB MIDI devices; contributed to open-source keyboard firmware.
- Home Servers & Systems: Managed Linux-based servers for personal cloud storage, websites, and development projects.

Education

Bachelor of Science in Computer Engineering

University of Wisconsin Milwaukee - Milwaukee, WI | Graduated 2022

Technical Skills

- Programming Languages: Python, C, C++, Java, JavaScript, HTML, CSS, VHDL
- Software Development Tools: Git, GitHub, Jira, RQM, Django, PowerShell, Bash, Unix
- Frameworks & Technologies: CI/CD, Embedded Linux, Test Automation, Agile Scrum
- Industry Knowledge: Avionics, Systems Integration, Software Development Lifecycle, Technical Writing, Open Source Development