Ryder Swanson

Chimacum, Washington 98325• ryder.swanson@wsu.edu • (360) 316-4985
www.ryderjack.com

Education

WASHINGTON STATE UNIVERSITY Pullman, WA
BS in Computer Science, GPA: 3.79 Expected Spring 2025
Relevant Coursework: Systems Programming C/C++. Advanced Data Structures C/C++. Graph Theory. Software
Engineering. Data Structures in C/C++. Program Design & Development in C. Intro to Computer Architecture. Automata
and Formal Languages. Discrete Structures. Physics for Scientists and Engineers.

Technical Skills

Programming: C++, C, Robot Framework, Python, Java, Javascript, GLSL.
Operating Systems: Windows 10 / 8 / 7, Linux (RHEL and Debian), and MAC OS X.

Experience

SCHWEITZER ENGINEERING LABORATORIES Pullman, WA
Software Engineering Intern June 2023 – Present
- Engineer and implement the functional testing suite for the Automation Firmware group
- Develop tests for pre-production drivers and hardware for functionality across all supported environments
- Maintain a Linux kernel driver suite mainlined by Canonical written in C
- Catalog critical software bugs inside the BIOS distribution and networking drivers for military grade computers
- Coordinated with a team of 6 Senior Engineers to develop a utility that automatically installs a headless Windows virtual machine then execute functional tests using QEMU

YESTERDAY'S TRACTORS Port Townsend, WA
System Administrator November 2020 – October 2021
- Managed server environments and user databases
- Provided IT support and resolved tickets for both hardware and software technical issues
- Coordinated with accounting team to design automated data entry solutions

GREENPOD DEVELOPMENT Port Townsend, WA
Architectural Rendering Specialist September 2019 – November 2020
- Communicated with clients to create photorealistic architectural renderings of client projects
- Designed accurate 3D environments to be used in virtual showcasing
- Implemented physically based shaders and modern rendering technologies

Leadership & Activities

SIDE PROJECTS
New Engine 2024 – Present
- A game engine with a focus on a well featured GUI editor. New Engine supports screen picking, object property manipulation, physics engine, full model loading using Open-Asset-Import-Library, and shader hot-loading.

Jack Engine 2019-2021
- A 3D game engine development focused on infinite, open world, chunk-based, procedural generation using C++/Java and OpenGL.

Skills & Interests

Technical: Automated Functional Testing, 3D rendering, shader programming, VFX, video editing.
Interests: Real-time graphics, PC building, audio enthusiast.