

CALVIN TALLENT

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EDUCATION

Washington State University – Computer Science (B.S.), Honors College Scholar May 2028 (expected)
Richland High School and Columbia Basin College (dual credit – ~60 credits earned in high school) June 2025
Relevant coursework: Advanced Data Structures, Automata and Formal Languages, Object-Oriented Principles, Data Mining

EXPERIENCE

Undergraduate Teaching Assistant – Advanced Data Structures January 2026 – Present

- Provide 1:1 programming help during office hours, improving students' debugging and problem-solving ability
- Grade programming assignments with detailed feedback on code quality and correctness

Wazzu Racing: Data Acquisition, Business, and Vehicle Dynamics August 2025 – Present

- Implement data processing scripts to clean and analyze data logs, allowing other subteams to make informed design decisions
- Design, deploy, and maintain new team website, enabling members and sponsors to access up-to-date information

RHS FTC Robotics Team: Designer, Lead Programmer, and Drive Director September 2022 – March 2025

- Design and manufacture ~25% of parts, and help with assembly, reducing workload for lead designer
- Program autonomous robot operation, driver assistance, and other features, resulting in 50% more points
- Direct drivers on strategy during matches and coordinate with allies, allowing drivers to concentrate on driving

Richland School District IT: Student Technician July 2023 – August 2024

- Resolve 40+ hardware/software tickets for students and staff per week, reducing workload on senior techs
- Train 3 new student techs in necessary hardware and software repair skills

SKILLS

- Languages: Rust, C++, Python, Java, Kotlin, C#, Haskell, JavaScript
- Frameworks/Libraries: React, Svelte, Matplotlib/Pandas/Numpy, Express, .NET, Unity, Godot
- Tools: Linux CLI, Git/Github, Cargo, Npm, Gradle, Make, Github Copilot

PROJECTS

Wazzu Racing GPS Track Creator (Rust)

- Process noisy GPS data from data logs to reconstruct track segments, used to validate vehicle dynamics simulations of the car
- Filter out bad data due to unreliable GPS and acceleration sensors

Wazzu Racing Website (Svelte)

- Built a responsive team website to showcase team updates, driver info, and sponsor content; includes CI/CD for easy publishing

Autonomous and Teleoperated Robot Control System (Java, Kotlin)

- Merges various sensor input, including rotary encoders and IMU, to pinpoint robot's position on field within ± 1 inch
- Uses a vector path follower to follow arbitrary paths as quickly as possible
- Uses an asynchronous command system for the robot to perform many actions in parallel

Space game, running on Columbia Basin College's planetarium (Unity, C#)

- Worked with students from CBC Game Development Club and Esports team to produce a game compatible with the planetarium
- Utilizes CBC's planetarium to provide an immersive experience not possible with traditional hardware
- Overcomes performance challenges imposed by the planetarium's high resolution

Scratch to Rust compiler (Rust)

- Implemented a compiler to convert Scratch blocks into Rust, increasing performance dramatically
- Includes support for concurrent execution of many Scratch threads at once
- Includes Rust implementation of Scratch standard library
- Utilizes Scratch API to download specific projects for compilation

AWARDS AND ACHIEVEMENTS

Washington State Opportunity Scholar August 2025 – Present
National Merit Commended Student October 2024
Member of the National Honor Society May 2023 – June 2025

LEADERSHIP AND ACTIVITIES

FCA Soccer: Soccer Referee September 2022 – May 2025
CBC Game Development Club: Vice President and Secretary January 2025 – June 2025