

J. Carter Watson

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SKILLS

Languages: Python, Bash, C#, Javascript, SQL, C/C++, Rust, Java, Cuda, Kotlin, Haskell, VHDL

Technologies: Git, AWS, React, Docker, Jenkins, Linux, PostgreSQL, Scikit, Unity, VR AR MR, NixOS, Tailwind

Misc: AI/ML, Technical Documentation, Software Testing, System Architecture, Atlassian Suite, Agile-Scrum, CI/CD

EXPERIENCE

Software Engineer Intern, Space Dynamics Lab – Logan, UT

Jul 2022 – Dec 2023

- Recognized as Student Scholar for feature ownership, extracurricular training, outreach, and academic excellence
- Created web and multi-platform mixed reality applications for R&D program
- Implemented authentication and physics systems for seamless user experience and higher immersion
- Refactored and updated the testing suite, achieving a 10% improvement in coverage

Systems Engineer Intern, Space Dynamics Lab – Logan, UT

Jan 2021 – Feb 2022

- Automated regression testing, saving 4-6 hours per release cycle
- Facilitated leading Factory Acceptance Testing for government contracts, ensuring compliance and quality
- Enhanced virtual system and workstation security through dynamic configuration, achieving compliant SCAP scores

Project Management Intern, Petersen Inc – Ogden, UT

May 2020 – Aug 2020

- Revamped inventory systems, cutting missing parts by 40% and saving significant part costs
- Implemented a digital tracking system, improving overall inventory accuracy and accountability

PROJECTS

Nexus, Personal Project

github.com/cartwatson/Nexus

- Developed a comprehensive Docker-based simulation platform to mimic the interactions between satellite systems, ground control, and supporting infrastructure
- Created a real-time monitoring dashboard using React to visualize simulated satellite and ground control operations

Choose Your Own Adventure, Hack USU

github.com/Utah-State-University-Cybersecurity/HackUSU-CYOA

- Earned the Beginner Award in the AI/ML category for exceptional project innovation and execution
- Leveraged the OpenAI API and a GUI library to design unique, interactive character-driven adventures.

Dan's Auto Barn, CS 3450 - Scrum Master

github.com/CS3450-Group9/Dans-AutoBarn

- Successfully led a team of 4 in an Agile environment as Scrum Master to develop a dynamic car rental website
- Implemented and deployed the final project on AWS, ensuring high availability and scalability

VR Heart Sync, CS 5890

github.com/cartwatson/VR-Heart-Sync

- Enhanced immersion in a VR application with biometric data from peripheral devices
- Pioneered a new dynamic selection technique integrating user fatigue levels

LEADERSHIP

President, USU InterFraternal Council

Nov 2021 – Dec 2023

- Tripled new-member recruitment metrics by reorganizing and standardizing inter-chapter recruitment
- Created workshop series by polling community for wanted topics and contacting professors

Community Representative, USU IEEE

Aug 2021 – Aug 2022

- Lead Arduino workshop for +30 technical and non-technical students
- Collaborated in planning Student Professional Awareness Conference for over 300 students

EDUCATION

Utah State University

Dec 2023

Bachelor of Science in Computer Science

Interests: Cycling, Traveling, Piano, Cooking, Hockey