

# J. Carter Watson

cartwatson@gmail.com | Active Secret Clearance, TS/SCI Eligible | www.cartwatson.com

## SKILLS

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**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

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**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

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**Nexus**, Personal Project [github.com/cartwatson/Nexus](https://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](https://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](https://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](https://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

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**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

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**Utah State University** **Dec 2023**  
Bachelor of Science in Computer Science

Interests: Cycling, Traveling, Piano, Cooking, Hockey