

AAVAR KHATIWODA

703 395 1540 | aavar@vt.edu | aavarkhatiwoda.com | github.com/aavarkhatiwoda | linkedin.com/in/aavar
Falls Church, VA | Active Secret Clearance

SUMMARY

Versatile software engineer with **over 4 years** of experience in professional full stack software development. Committed to **mastering a diverse range of tools** to drive team and project success. Proven track record of enhancing existing codebases and **delivering impactful solutions**, demonstrating a wide array of technical skills and a commitment to continuous learning.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, Java, C++, C, Bash, RISC-V Assembly

Frameworks and Tools: ReactJS, JSX, Sass, Jenkins, Jira, Vim, Terminal, Linux / Red Hat Enterprise Linux, Virtual Machines

Operating Systems & Memory: Job Control Shells, Fork-Join Threadpool, 64-bit Dynamic Storage Allocators, Multimedia Web and Video Server, Random-Access Decompression and Compression Techniques in Memory

PROFESSIONAL HISTORY

Lockheed Martin

May 2024 - Present

Level I Software Engineer

Manassas, VA

- Go-to subject matter expert for scripting-related inquiries, from classified to unclassified systems.
- Upheld best engineering practices to continuously refactor and improve the codebase to assist in maintaining a scalable platform, such as by reducing redundancies in code through developing scripts to automate repetitive intensive tasks.
- Preserved 10+ years of team's documentation by migrating resources from Redmine to GitLab ahead of Redmine's deprecation. Developed scripts to automate the processes of extracting Redmine wikis, converting AsciiDoc to Markdown through existing tool, fixing imperfections of the conversion tool, and migrating finalized documents to GitLab.

Northrop Grumman

Jun 2023 - Aug 2023

Software Engineer Intern

Baltimore, MD

- Developed new Jenkins health monitoring tools to better prevent and diagnose build failures, implementing the ability to filter diagnostics criteria through user-specific data visualization metrics on OpenSearch Dashboards.
- Optimized Jenkins pipeline data collection scripts, yielding a 30%+ increase in speed in the data collection process.

RESEARCH

Virginia Tech, College of Engineering

Jan 2024 - May 2024

Undergraduate Research Assistant, CS4994 - Undergraduate Research

Blacksburg, VA

- Designed a novel three-step algorithm to resolve memory bandwidth limitations of traditional compression techniques, improving random-access decompression across four diverse memory dumps.
- Outperformed the DEFLATE algorithm in compression performance across each tested memory dump.

LEADERSHIP

CS OpenSource at Virginia Tech, Career Development Resources

Jan 2024 - May 2024

Founding Vice President

Blacksburg, VA

- Established a new club targeting students' career developments through their contributions to open source projects.
- Created a timeline of club goals and held club events to help students get started in understanding the world of collaborative software development pertaining to open source projects.
- Introduced 55+ new students to critical software collaboration tools and concepts, and provided resources to help students find meaningful open source projects to contribute to, aligned with their interests.

Virginia Tech, College of Engineering

Aug 2023 - Dec 2023

Undergraduate Teaching Assistant, CS 1114 - Introduction to Software Design [Java]

Blacksburg, VA

- Aided 200+ college students in building routine study habits to aid in ability to understand new object-oriented concepts.

TECHNICAL PROJECTS

Multimedia Web and Video Server

Apr 2024 - May 2024

CS3214 Computer Systems Course Project

Blacksburg, VA

- Built a robust and tested multimedia server with multiple client support and protocol independence using HTTP/1.1 and TCP protocols to serve files and stream MP4 video.
- Authenticated user logins by verifying user-specific JSON web tokens through a token-based authentication API.

EDUCATION

Virginia Tech, College of Engineering

May 2024

Bachelor of Science in Computer Science

Blacksburg, VA

Minor in Mathematics

GPA: 3.716, Dean's List with Distinction