AAVAR KHATIWADA

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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 department's documentation by migrating resources from Redmine to GitLab ahead of Redmine's deprecation.* Developed scripts to extract Redmine AsciiDoc wikis, convert wikis to Markdown format, fix imperfections of the conversion tool, and migrate 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*