AAVAR KHATIWODA

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Falls Church, VA | Active Secret Clearance

SUMMARY

*Versatile software engineer with **over 5 years** of experience in full stack software development. Committed to **mastering a diverse range of tools** to drive team and product 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, Compression and Random-Access Decompression Techniques in Memory

PROFESSIONAL HISTORY

Lockheed Martin   **May 2024 - Present**
Software Engineer   *Manassas, VA*
- Continuously enhance internal and client applications through developing, implementing, and maintaining robust and scalable applications and extending functionality of legacy tools.
- Enhance the data capture and export processes of automated and user-requested system logs across classified/unclassified systems to better aid in early-detection and analysis of failing functionality, reducing downtime of critical tools.
- Create and maintain custom system configurations on client applications, ensuring the ability to run specialized tools, such as bringing up necessary interfaces and capturing data, required toward each individual system.
- Improve networking infrastructure by standardizing disjointed hostnaming paradigms across key systems into a unified notation.
- Deliver improved high-impact scripting design guidelines to help engineers ensure robustness in coding design practices.
- Automate the migration of team's 160+ critical workflow wikis from Redmine to GitLab to preserve essential documentation ahead of Redmine's deprecation.

Northrop Grumman   **Jun 2023 - Aug 2023**
Software Engineer Intern   *Baltimore, MD*
- Led team to achieve above-expected story completion targets through effectively coordinating resources as rotating scrum lead.
- Enhanced Jenkins CI/CD pipelines through developing new health monitoring tools to better diagnose and prevent impending build failures, implementing diagnostic filtering of health data on OpenSearch Dashboards.
- Increased efficiency of Jenkins pipeline data collection scripts to yield a -20% time overhead in the data collection process.

TECHNICAL PROJECTS

Personal Software Engineer Portfolio   **2020 - Present**
aavar.studio   *Continuous Learning & Development*
- Self-taught full stack ReactJS developer with over 5 years of experience. Built custom professional software engineer portfolio page to highlight relevant technical skills, work history, and leadership/research experience.
- Emphasize a high-quality user interface and user experience through designing and implementing fully responsive layouts optimized for screen sizes and resolutions up to 4k, providing interactive components and a strong attention to detail.
- Project deployed through Netlify, and custom domain configured through Squarespace.

RESEARCH

Virginia Tech, *College of Engineering*   **Jan 2024 - May 2024**
Undergraduate Research Assistant, CS4994 - Undergraduate Research   *Blacksburg, VA*
- Designed a novel 3-step algorithm tailored to specifications of memory to resolve memory bandwidth limitations of traditional LZ77 and Huffman compression techniques, improving compression and random-access decompression across 4 large and 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 career development-focused club targeting students' understanding of the collaborative software development processes pertaining to open source projects.
- Introduced 55+ new students to the software development lifecycle and critical workflow tools [e.g., AGILE framework, Git, GitHub].
- Provided resources to help students find meaningful open source projects, based on skillset and personal interests.

Virginia Tech, College of Engineering   **Aug 2023 - Dec 2023**
Undergraduate Teaching Assistant, CS 1114 - Introduction to Software Design   *Backsburg, VA*
- Aided 200+ college students in building a critical understanding of object-oriented programming concepts in Java.
- Helped students improve efficiency of code by recommending better implementations of data structures and algorithms.

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*