Piyush Sharma

480-495-3637 | pshar169@asu.edu | linkedin.com/in/piyush331 | github.com/PiyushSharma1999

Summary

Full-stack developer with experience building intuitive and responsive front-end components and designing scalable, fault-tolerant, and highly available back-end systems. Self-organizing and adaptable, with a strong ability to thrive in agile, fast-paced team environments and contribute across the development life-cycle.

Technical Skills

Languages: Java, Python, JavaScript/TypeScript, Bash, SQL
Frameworks: Vue.js, SpringBoot, Flask
Developer Tools: Git, Docker, Apche, NGINX, Prometheus
Libraries: three.js, Pinia,

Education

Arizona State University Tempe, AZ
Master of Science, Computer Software Engineering *Aug. 2022 – May 2026*

Pune University Pune, India
Bachelor of Engineering, Computer Engineering *Aug. 2018 – Aug 2022*

Experience

GSA Researcher May 2025 – Present
HEAL Labs, Arizona State University *Mesa, AZ*

- Developed interactive controls for a 3D bone rendering tool after clinicians reported difficulty in analyzing cases, implementing fine-grained state management that improved rendering precision and enhanced user experience.
- Optimized application performance when slow user feed rendering was straining the backend by restructuring state management and introducing client-side caching, which reduced server load and significantly cut load times.
- Strengthened backend security after a review revealed vulnerabilities by implementing strict input validation and sanitization, ensuring the system passed penetration testing with no detected NoSQL injection or XSS risks.
- Integrated a real-time AI-driven diagnosis model into the backend to address delays in manual case analysis, exposing the model through an API that enabled automated intelligent case evaluations and faster diagnostic support.
- Configured a reverse proxy to resolve scaling challenges with secure access and load distribution, implementing SSL termination and routing rules that improved reliability, performance, and scalability.
- Migrated the application from artifact-based deployment to a Docker-based pipeline to eliminate environment inconsistencies, enabling seamless, consistent, and portable deployments across development, staging, and production.

Developer 1 Nov. 2022 – Jul. 2024
Mouser Electronics *Pune, India*

- Developed a Power Apps solution to block restricted countries in response to compliance needs, managing work items in Azure DevOps and leveraging Power Automate flows to automate feature creation, story linking, and status tracking. Integrated SQL Server for data storage and implemented custom formulas to calculate blockage completion, resulting in a reliable compliance tool.
- Automated pull request processes for the QA team by integrating Git commands with the Azure DevOps Services API, reducing repetitive manual work and saving approximately 6 hours each week.
- Streamlined microsite launches for new electronic products on Mouser.com by automating validation of specifications, marketing feedback, compliance checks, and part numbers, eliminating errors and saving about 5 hours per day.
- Improved Agile workflow efficiency by designing an automation tool to flag incorrectly formatted user stories on Azure DevOps boards, enhancing process accuracy and saving around 4 hours per sprint.
- Ensured global trade compliance by developing an automation to detect and flag non-compliant product IDs from the Global Trade Management System, triggering alerts and saving about 2 hours of manual checks daily.
- Built a Python-based monitoring project that combined PowerShell commands with Splunk to generate alerts for VM outages, reducing incident response time and improving overall system reliability.