Gaurav Srivastava

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Summary

Software Developer with over 3 years of experience at BaseSolve Informatics Pvt. Ltd., specializing in scalable back-end solutions for genomics data analysis and healthcare information management. Key contributor to AUGMET, a Precision Genomics Suite, where I architected and led development of mission-critical internal systems. Transitioned into a DevOps Engineer role, enhancing CI/CD, infrastructure as code, and monitoring. Proven record of delivering robust, user-centric, high-performance features and automations that drive measurable impact.

Experience

DevOps Engineer
March 2023 to Current
BaseSolve Informatics Pvt. Ltd. - Ahmedabad, India

- **CI/CD Pipeline Automation (Platform Deployment Suite)**: Expanded and maintained CI/CD pipelines with GitHub Actions, reducing manual deployment steps by 60% and ensuring consistent, rapid releases for all product components.
- **Infrastructure as Code (Cloud Resource Provisioning)**: Authored and versioned CloudFormation templates for all core services, standardising and accelerating environment creation, while cutting setup time.
- **Platform Monitoring & Performance (Observability Dashboard)**: Configured CloudWatch metrics, dashboards, and OpenTelemetry traces to proactively detect and troubleshoot API performance issues, reducing incident response time by 50%.
- **Microservices Integration (Automated Build and Release)**: Collaborated closely with development teams to integrate new microservices into automated build-and-release workflows, facilitating smooth launches, and cross-team efficiency.
- **Environment Provisioning Automation (Resource Management Toolkit)**: Automated the provisioning process for test and production environments, achieving a 70% reduction in environment creation time.

Python Developer (SDE2)
October 2021 to March 2023
BaseSolve Informatics Pvt. Ltd. - Ahmedabad, India

- **Internal API Platform for AUGMET (Clinical Bioinformatics System)**: Led development of the foundational API system powering AUGMET, enabling secure genomic data analysis and laboratory management for leading healthcare institutions, including Dartmouth-Hitchcock Medical Center and NCGM. Improved daily variant throughput by 40%.
- **AUGMET Command-Line Interface (Laboratory Data Access Tool)**: Architected and maintained a robust CLI with seven distinct modules, delivering secure, role-based genomic data access for more than 10 laboratories, several thousand researchers, and clinicians, ultimately servicing 1000+ patients per day.
- **Automated Workflow Orchestration Service (Task Management Engine)**: Built a distributed engine for the AUGMET platform that automates complex genomics and pathology workflows, integrates with HPC clusters and AWS, provides real-time cost analytics, advanced job scheduling, fault tolerance, and enterprise monitoring—completely eliminating manual intervention and enabling scalable, efficient, cost-optimised bioinformatics operations for clinical and research environments.
- **Modular Healthcare API Gateway & LIMS Systems:** Built an advanced gateway integrating multiple LIS and LIMS systems—including the design and development of a native LIMS—featuring real-time HL7 (MLLP) result reporting, automated digital pathology workflows, and hierarchical patient/sample management. This dramatically accelerated data retrieval and improved onboarding for new clinical partners.
- **Medical Image Processing Engine (Digital Pathology Pipeline)**: Built an advanced image processing component, converting histopathology slides to Deep Zoom format and improving browser-based diagnostic review, and research throughput.
- **Platform Releases & Deployment Automation**: Managed bi-weekly AUGMET release cycles and spearheaded the automation of deployment processes, ensuring safe rollouts, and reducing operational overhead.

Skills

- Technical Leadership & Methodologies: Scrum, project lifecycle, project management, DevOps practices, CI/CD pipeline management, programming & design skills
- Cloud and Infrastructure: AWS (EC2, S3, Lambda, IAM, CloudFormation, CloudWatch)
- Programming and Data: Python, SQL, MongoDB (aggregation pipelines and optimisation), Bash, C++
- Tools and Frameworks: Flask, Docker, Singularity, Git

- DevOps and Automation: CI/CD (GitHub Actions, CodePipeline), IaC (CloudFormation), OpenTelemetry, monitoring, and alerting

Education

Bachelor of Technology : **Mechanical Engineering**, 01/2018
Dr. A. P. J. Abdul Kalam Technical University - Greater Noida, India

Websites, Portfolios, Profiles

- **Linkedin:** http://linkedin.com/in/mech-srivastava-gaurav/
- **Portfolio:** https://srivastav-gaurav.github.io/portfolio