**Akshaya Reddy Pulla**

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**EDUCATION**

**University of Florida** (CGPA - 3.92/4.0) **Gainesville, FL**

*Master of Science, Computer Science*

* **Relevant Courses:** Distributed Operating System Principles, Machine Learning, Computer Network, Analysis of Algorithms, Advanced Data Structures, Human Computer Interaction, Natural Language Processing.

**EXPERIENCE**

**Professional Summary**

* 5 years of experience as a **DevOps Engineer** with a background as a Software Engineer and Java Developer, specializing in automating, managing, and scaling infrastructure using **AWS**, **GCP**, **Kubernetes**, and **Terraform**.
* Proficient in building and optimizing **CI/CD pipelines** with tools like **Jenkins**, **Git**, **Docker**, and **AWS CodePipeline**, reducing deployment times by 40% and ensuring smooth, automated delivery of applications across multiple environments.
* Extensive experience in **containerization** and **orchestration** using **Docker** and **Kubernetes**, managing scalable microservices architectures, and ensuring high availability and reliability across distributed environments.
* In-depth knowledge of **cloud computing** (AWS and GCP), including experience with **EC2**, **S3**, **EKS**, **RDS**, and **IAM**, leveraging these services to optimize infrastructure and reduce costs by 30%.
* Strong focus on **infrastructure as code (IaC)** using **Terraform** and **CloudFormation**, automating infrastructure provisioning and ensuring repeatable, version-controlled, and efficient environment setups.
* Proven ability to secure and monitor distributed systems using tools like **OAuth**, **JWT**, **IAP** token-based authentication, and **AWS IAM** policies, improving security compliance and data protection.
* Hands-on experience with **monitoring and logging** tools such as **Prometheus**, **Grafana**, **ELK stack**, and **CloudWatch**, creating real-time insights and improving system reliability through proactive monitoring.
* Skilled in **automated testing** and **code quality assurance** for CI/CD pipelines using frameworks like **JUnit**, **Mockito**, and **Selenium**, ensuring the delivery of robust, scalable, and high-quality software.
* Experienced in working within **Agile** teams, collaborating with cross-functional teams to align development and operations, and driving **DevOps culture** to streamline development, enhance collaboration, and accelerate product delivery.

**EXPERIENCE**

**Fujitsu America -*****Java Full Stack Developer* Richardson, Texas**

***Tech Stack****: Java 17, Spring Boot, Angular.js, REST, SOAP, Cassandra, Docker, Kubernetes, AWS, GCP**May 2023 – April 2024*

* Achieved a 30% performance boost by optimizing **microservices infrastructure** and backend systems, enhancing scalability and reliability across **Kubernetes** clusters and cloud environments.
* Led the **design and orchestration** of scalable, high-availability microservices using **Spring Boot**, deployed on **Kubernetes** with **AWS** and **GCP** for cloud hosting, ensuring zero-downtime during deployments.
* Secured APIs and cloud-based services using **OAuth 2.0**, **JWT**, and **IAP** token-based authentication, enhancing security and compliance across cloud-hosted microservices.
* Designed and maintained **CI/CD pipelines** with **Jenkins**, **Git**, **Docker**, and **Kubernetes**, reducing deployment times and ensuring continuous delivery of robust applications.
* Developed and implemented automated **infrastructure as code (IaC)** solutions using **Terraform**, provisioning scalable cloud resources on **AWS** and **GCP** to meet dynamic workload demands.
* Managed **Kubernetes clusters** for seamless application scaling and automated deployment processes, improving overall system performance and resilience under high traffic.
* Integrated **NoSQL databases** like **Cassandra** within the cloud architecture, ensuring scalability and fault tolerance across distributed systems with effective data replication strategies.
* Collaborated closely with development and operations teams, applying **Agile methodologies** (SAFe) to synchronize development and DevOps processes, delivering features rapidly and with high quality.
* Enhanced **monitoring and alerting systems** using tools like **Prometheus**, **Grafana**, and **CloudWatch**, enabling proactive management of system performance and reliability.
* Spearheaded cloud migration initiatives, leveraging **AWS** and **GCP** services to ensure disaster recovery, automated failover, and high availability, while optimizing cloud resource utilization.
* Applied best practices for **version control**, **branching strategies**, and **code reviews** using **Git**, ensuring codebase integrity and team productivity.
* Continuously explored emerging tools and technologies in **DevOps**, cloud infrastructure, and containerization, implementing best practices to stay ahead of industry trends and optimize system performance.

**L&T Technology Services - *Software Engineer* Bengaluru, India**

***Tech Stack****: Python, AWS, Terraform, React, HTML5, JavaScript, Figma, Django, Flask, Jenkins, Docker May 2018 – Oct 2021*

* Improved **IoT gateway** scalability by 30% through **AWS IoT Core** integration and automated monitoring with **CloudWatch** and **Prometheus** for quick incident response.
* Reduced setup times by 40% using **Python**, **AWS CloudFormation**, and **Terraform**, implementing **SRE best practices** like **SLOs** and **error budgets** for reliability.
* Designed **ADA-compliant** interfaces with **React** and **CSS**, speeding up login by 20% and increasing user engagement by 25% through improved accessibility.
* Built high-performance backends for **IoT gateways** using **Node.js**, **Django**, and **Flask**, boosting data processing speeds by 40% with **AWS Lambda** integration.
* Automated **Legato application** management via **shell scripting**, improving productivity by 40% and accelerating project timelines by 30%.
* Enhanced workflow efficiency using **Git**, **JIRA**, and **Confluence**, improving collaboration and reducing manual tasks for better team productivity.
* Streamlined **CI/CD pipelines** with **Jenkins**, **Docker**, and **AWS CodePipeline**, reducing deployment times by 40% and speeding up development cycles.
* Boosted testing efficiency with **Selenium**, **Python**, and **C++**, enhancing software quality and reliability across multiple development environments.
* Architected **serverless applications** with **AWS Lambda** and **API Gateway**, reducing infrastructure overhead and improving scalability and performance.
* Developed fault-tolerant IoT systems using **AWS S3**, **DynamoDB**, and **SNS**, ensuring high availability and resilience against production failures.
* Led automation initiatives, reducing manual tasks and increasing team focus on high-value work, improving operational efficiency.
* Created **IaC templates** with **Terraform** and **CloudFormation**, enabling consistent, automated provisioning of cloud infrastructure.
* Automated cloud operations using **Python** and **AWS SDKs**, improving operational efficiency and reducing manual intervention in system management.
* Applied **Agile** principles to ensure timely delivery of features, aligning development with stakeholder expectations and improving collaboration.
* Optimized **cloud-native applications** by reducing latency and improving performance, applying **SRE practices** to ensure reliability and scalability.

**BCITS PVT LTD -** *Software Engineer Intern* **Bengaluru, India**

***Tech Stack****: React.js, Express.js, Node.js, Socket.io, OpenCV, MongoDB, PostgreSQL, IoT, Figma. Oct 2017 – April 2018*

* Solely designed and orchestrated a full-stack **MERN application** with integrated **IoT** for cloth factories, fully digitizing processes and streamlining operations.
* Engineered a **dynamic web dashboard** utilizing **Socket.io** and **React**, enabling **real-time visualization** of key performance indicators and providing immediate insights into operations.
* Integrated Secure Vision technology with **IoT devices** to ensure **secure and efficient data transmission**, minimizing latency and ensuring **data integrity**.
* Developed a **real-time backend** using **Node.js** and **Express**, leveraging **MongoDB** for scalabledata storage, handling high throughput from multiple IoT devices.
* Implemented **authentication and authorization** using **JWT** and **OAuth2**, ensuring security compliance and protecting sensitive data.
* Optimized data flow from IoT devices to the dashboard, reducing lag and improving application responsiveness for real-time decision-making.
* Reduced **manual errors** and improved **operational efficiency** by integrating **IoT sensors**, automating data collection, and minimizing manual input.
* Achieved a reduction in **factory downtime** by providing **real-time alerts and notifications**, enabling quick responses to critical issues.
* **Architected** a **scalable** and **maintainable system** using a **microservices-based architecture** for easy updates without disrupting operations.
* Leveraged **cloud-based services** for multi-location access, giving managers **remote control** over operations, enhancing flexibility.
* Developed **custom APIs** for seamless communication and real-time data transfer between **IoT devices** and the application.
* Implemented **data analytics** and reporting features, allowing managers to track **performance trends** and make **data-driven decisions**.
* Ensured compliance with **IoT security standards**, incorporating **encryption** and secure protocols for data transmission.
* Conducted thorough testing using **automated testing frameworks**, ensuring **reliability**, **security**, and **performance** in production.
* **Collaborated** with factory personnel to tailor the application, ensuring a smooth **digital transformation** from paper-based workflows.

**PROJECTS**



**Twitter Engine Clone |** *C++, JavaScript, MongoDB*

* Devised a high-performance Twitter simulator using C++, JavaScript, and MongoDB capable of efficiently managing over 10,000 clients simultaneously, supporting features like registration, tweeting, and real-time tweet querying.

**Human Computer Interaction Project – Campus Crib |** *React, JavaScript, Tailwind CSS, MongoDB*

* Built and launched a React web prototype for student housing matches at the University of Florida, employing JavaScript and Tailwind CSS; enhanced user engagement, achieving a 90% user satisfaction rate.

**Self-Checkout shopping *system*** *| Flask, AWS, React, TensorFlow, Product Design*

* Engineered an innovative shopping cart system using a custom-trained AWS Recognition model, halving checkout times and dramatically improving the shopping experience.

**An AI-driven NPC with Visual Awareness** |*Python, OpenCV, ChatGPT Large Language Models (OpenAI), Multi-threading*

* Developed a desktop Minesweeper game that integrates with *LLM’*s like ChatGPT to dynamically respond and strategize according to the game state, significantly enhancing user engagement and gameplay innovation.

**SKILLS**



**Programming Languages:** Python, C/C++, Java, JavaScript (ES6+), TypeScript, Erlang, Shell Scripting.

**Web:** React, Redux, Angular, webpack, Bootstrap, Node.js, Express, Django, Flask, TailwindCSS, HTML, Selenium, Docker, Jenkins, Kubernetes.

**Databases:** MySQL, PostgreSQL, Oracle, SQL Server, NoSQL, DynamoDB, MongoDB, Informix, Spanner DB, Cassandra.

**Cloud**: AWS, DynamoDB, RDS, Lambda, CloudFront, S3, ElastiCache, CloudWatch, SQS, SNS, CloudFormation, CodePipeline.

**CI/CD & Version Control**: Maven, Jenkins, Ansible, Terraform, Git, Bitbucket, GitHub, DevOps, Docker, Team city.

**Visualization**: Tableau, Looker Grafana, Cloudwatch.

**Tools and Platforms:** JIRA, Aptest, UNIX/Linux, Terraform, Git CLI, GitHub, IOT, Figma, Postman, VS Code, WordPress, Firebase.