# Prathyusha Vanga

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## **Professional Summary:**

- Experienced Java Full Stack Developer with expertise in building scalable and high-performance backend applications using Java, Spring Boot, React.js and Microservices.
- Professional with extensive experience in the Software Development Life Cycle (SDLC) and a
  profound understanding of the analysis, design, development, and implementation of Java/J2EE
  applications.
- An expert in building **event-driven architectures** using **Kafka, Kafka Streams API** for real-time data processing and integration.
- Proficient in building scalable, maintainable, and secure Java-based applications using SpringBoot for backend services.
- Skilled in creating dynamic, responsive user interfaces with **React.js**, ensuring smooth interaction between the front-end and backend systems.
- Cloud & DevOps Proficiency with hands-on experience in AWS, Google Cloud Platform (GCP),
   Terraform, and Docker, enabling efficient deployment and cloud infrastructure management.
- Hands-on experience with various GCP services, including Compute Engine, Cloud Storage (GCS),
   Cloud Run for cloud-based solutions.
- Hands-on experience with AWS services like EC2, S3, Lambda, API Gateway, RDS, DynamoDB, CloudWatch, and IAM, enabling scalable infrastructure, serverless computing, secure authentication, and efficient cloud deployments.
- Adept at designing, implementing, and optimizing **REST APIs** for seamless communication between microservices and third-party integrations.
- Expertise in using **Terraform** for infrastructure-as-code (**IaC**) to automate the provisioning and management of cloud resources on **GCP** and **AWS**.
- **Microservices Architecture** design and development, ensuring loosely coupled and scalable backend services for financial and eCommerce platforms.
- Strong background in **containerization** technologies (**Docker**) and container orchestration (**Kubernetes, GKE**) to deploy and manage applications at scale.
- Familiar with microservices architecture, enabling the development of modular, scalable applications using **Spring Boot, GCP** and **AWS**.
- Proficient in CI/CD pipelines, using tools like Jenkins, GitHub Actions, and Maven for automating testing, deployment, and continuous integration.
- **Consulting & Technical Leadership**, guiding teams in adopting new technologies, designing scalable architectures, and improving code quality through **test-driven development (TDD).**
- Well-versed in **Agile methodologies**, participating in sprint planning, stand-ups, & retrospectives, while ensuring the timely delivery of high-quality solutions.
- **Cross-functional Collaboration**, working closely with designers, product managers, and research teams to develop and deliver high-impact software solutions.
- Collaborated in an Agile environment using **pair programming** to improve **code quality**, knowledge sharing, and rapid problem-solving, ensuring efficient development and best practices.
- Developed secure and scalable applications for banking, fintech, and eCommerce domains, including financial transactions, order processing, fraud detection, and compliance with regulatory standards like PCI-DSS, GDPR and data privacy laws.
- Strong problem-solving skills, consistently identifying and resolving performance bottlenecks, bugs, and inefficiencies in complex systems.
- Dedicated to applying best practices in coding, version control (**Git**), and software development processes to maintain clean, efficient, and readable code.

## **Technical Skills:**

Languages	Java, JavaScript, Python, C, C++, SQL.
Methodologies	Agile, Scrum, Test-Driven Development (TDD), Continuous
	Integration/Continuous Deployment (CI/CD).
Database	MySQL, PostgreSQL, DB2, MongoDB, Google Cloud Datastore.
Backend Technologies	Java, Spring, Spring Boot, Python, Flask, Node.js, Microservices
Frontend Technologies	ReactJS, AngularJS, HTML, CSS, JavaScript.
Web services	RESTful APIs, SOAP.
Messaging & Streaming	Kafka, Kafka Streams, MQ, RabbitMQ, Google Pub/Sub, AWS SNS,
Systems	AWS SQS, and Event-Driven Architecture.
Build & Deploy	Jenkins, Maven, Gradle, Docker, Kubernetes, CI/CD pipelines.
Security & Authentication	OAuth 2.0, SAML, JWT, Spring Security, AWS IAM, API Security.
Development Tools	Eclipse, IntelliJ, Visual Studio, Postman.
Mark-up/XML Technologies	HTML, CSS, XML, JSON, YAML.
Web/App Servers	Tomcat, Apache Tomcat, AWS Lambda, NGINX, Google App Engine.
Testing Framework	Junit, Mockito.
Version Control	Git, Gitlab, GitHub.
OS & Environment	macOs, Linux, Windows, Google Cloud Platform.
Cloud & Infrastructure	EC2, S3, Lambda, API Gateway, CloudWatch, DynamoDB, SQS, SNS,
	IAM, GCE, GCS, Cloud Functions, Cloud Pub/Sub, Terraform

## **Professional Experience:**

Client: Fifth Third Bank Role: Java Full Stack Developer August 2024 - Present

Responsibilities:

- Designed, developed and maintained full-stack financial applications using **Java**, **Spring Boot**, **and React.js**, ensuring secure, scalable, and efficient real-time transaction processing.
- Built and deployed microservices on AWS, leveraging EC2, S3, Lambda, and RDS to ensure high
  performance, scalability, and cost efficiency for banking and trading platforms.
- Designed and implemented **RESTful APIs**, enabling seamless and secure data exchange between financial systems for **real-time transaction processing** and **financial data synchronization**.
- Worked on both **React and Angular** to develop dynamic, responsive, and user-friendly web interfaces.
- Worked extensively with PostgreSQL and DynamoDB, optimizing query performance, indexing, and partitioning to handle high volumes of financial data while ensuring data integrity and security.
- Ensured applications complied with financial regulatory standards such as **PCI-DSS**, implementing data encryption, secure authentication, and role-based access control (RBAC).
- Contributed to the implementation of **CI/CD pipelines** using **Jenkins, GitHub Actions,** and **Terraform**, automating **testing**, **integration**, and **deployments** for faster software releases.
- Used **Terraform** to manage cloud infrastructure efficiently, automating provisioning and scaling of AWS resources for **cost optimization and enhanced maintainability**.

- Collaborated with security teams to implement industry-standard security controls, including **OWASP security principles, data encryption, and** vulnerability management.
- Leveraged AWS services such as IAM, SQS, SNS, and API Gateway to build secure, high-availability, and fault-tolerant financial applications.
- Optimized financial applications for high availability and low latency, implementing caching mechanisms, and load balancing.
- Developed and maintained unit tests (JUnit, Mockito), integration tests, and end-to-end testing to ensure high application reliability and correctness.
- Partnered with product owners to align software features with business needs, enhancing user experience and operational efficiency.
- Collaborated in **Agile (Scrum) environments**, working closely with business analysts, DevOps engineers, and security teams to deliver high-quality, **business-driven financial solutions**.
- Implemented **RESTful APIs** to facilitate seamless and secure data exchange between financial systems, ensuring smooth communication for financial transactions.
- Actively participated in code reviews, **sprint planning**, **retrospectives**, and sprint reviews, ensuring continuous improvement and adherence to best coding practices.
- Engaged in technical discussions about **architecture**, contributing to design decisions and improvements in scalability, performance, and maintainability of enterprise applications.

Client: Thoughtworks
Role: Java Full Stack Developer
Responsibilities:

August 2023 – July 2024

- Developed applications for an eCommerce platform using Java, implementing multithreading for improved performance and efficient data handling.
- Independently designed and developed scalable Java microservices using Spring Boot and Spring Cloud Config, enabling efficient order request processing.
- Created and maintained **REST API endpoints** for order fulfillment, returns, and cancellations, ensuring seamless transaction processing for the eCommerce platform.
- Designed and implemented ingestion services using **Kafka Streams**, leveraging **Kafka Producer** and **Consumer APIs** to facilitate real-time data processing with **Google Cloud Storage**.
- Developed and designed interactive web pages for order returns using **React, Angular,** and **JavaScript,** integrating custom validation controls to enhance user experience.
- Automated infrastructure provisioning and resource management using Terraform, optimizing deployment efficiency and maintaining infrastructure consistency.
- Designed and implemented **event-driven** architectures, improving system responsiveness, **reducing latency**, and enabling real-time business process automation.
- Collaborated with business and research teams in an **Agile environment**, participating in story grooming, defining performance benchmarks, and ensuring alignment with business objectives.
- Led technical decision-making processes, researching and adopting new technologies to enhance application scalability, maintainability, and system performance.
- Adopted test-driven development (TDD) methodologies, writing JUnit and Mockito test cases to
  ensure robust software quality, maintainability, and reliability.
- Contributed to the implementation of **continuous integration** and **delivery (CI/CD)** pipelines, streamlining the development and deployment lifecycle.
- **Optimized system performance** by analyzing and addressing bottlenecks, ensuring efficient resource **utilization** and maintaining **system reliability**.
- Actively participated in peer **code reviews**, providing constructive feedback and ensuring adherence to coding best practices and design patterns.

- Integrated **backend microservices** with **frontend applications**, ensuring seamless data flow and a cohesive user experience.
- Worked closely with **DevOps** teams to enhance **monitoring**, **logging**, and **debugging capabilities**, improving system **observability** and **reducing downtime**.
- Implemented robust **exception handling** and logging mechanisms to improve **fault tolerance** and facilitate issue resolution.
- Engaged in **cross-team collaboration**, aligning development efforts with UX designers, product managers, and quality assurance teams to deliver a well-rounded solution.
- Applied **caching mechanisms** and database optimizations to improve query performance and ensure high availability for eCommerce transactions.
- Maintained comprehensive **documentation for APIs, infrastructure configurations**, and system workflows, ensuring knowledge transfer and seamless onboarding for new developers.
- Engaged in **pair programming** sessions to enhance **code quality**, facilitate knowledge sharing, and improve **problem-solving efficiency** within the team.

Client: Poshmark November 2021 – July 2023

## **Role: Full Stack Developer**

## Responsibilities:

- Developed a Java-based backend application capable of processing input images and generating accurate 3D models for visualization.
- Implemented **Python scripts** using **image processing** techniques to extract relevant features and enhance the accuracy of **3D model generation**.
- Designed a user-friendly interface with **Angular.js**, enabling seamless image uploads and interactions for users.
- Developed and integrated backend REST APIs to facilitate efficient communication between the frontend and backend services.
- Utilized **React.js** to create dynamic and interactive UI components that rendered **data-driven visualizations**.
- Optimized application performance by deploying the Flask-based image processing module on Google Cloud Platform VM instances.
- Configured **NGINX** as a reverse proxy to enhance server response times and accelerate image processing capabilities.
- Ensured a **responsive and dynamic web application** by implementing real-time updates to reflect changes instantly.
- Conducted **rigorous testing** to validate backend logic, ensuring robust and efficient handling of complex image processing **workflows**.
- Worked in collaboration with **frontend developers** to align **UI functionalities** with backend processing for a seamless experience.
- Authored comprehensive documentation outlining application architecture, API endpoints, and deployment strategies.
- **Debugged and optimized** backend performance, resolving issues related to image parsing, transformation, and model generation.
- Integrated cloud services to enable **scalability** and enhance **computational efficiency** for large-scale image processing.
- Contributed significantly to project success by ensuring the smooth integration of **Java, Python,** and **cloud technologies** to achieve the intended objectives.

February 2019 – October 2021

Client: Techwave Inc Role: Java Developer

## **Responsibilities:**

- Developed and maintained full-stack web applications using Java, Spring Boot, React, and Angular, ensuring seamless user experiences.
- Built and deployed **scalable microservices** on **AWS**, **utilizing EC2**, **S3**, **Lambda**, **and RDS** for efficient cloud-based architecture.
- Designed and implemented **RESTful APIs** to enable secure and smooth communication between frontend and backend services.
- Worked on both **React and Angular** to develop dynamic, responsive, and user-friendly web interfaces.
- Leveraged AWS services for cloud-native application development, including **S3 for storage, RDS** for databases, and Lambda for serverless computing.
- Utilized Terraform to automate infrastructure provisioning and deployment on AWS.
- Followed **Agile methodologies** and engaged in **pair programming** to improve **code quality**, knowledge sharing, and team collaboration.
- Integrated authentication and authorization mechanisms using AWS Cognito and **Spring Security** to ensure secure access control.
- Optimized application performance by implementing caching strategies and database indexing for high-traffic scenarios.
- Collaborated closely with DevOps teams to streamline **CI/CD pipelines**, **automating testing** and deployment processes.
- Managed relational databases using SQL (PostgreSQL/MySQL), optimizing queries for efficient data retrieval and storage.
- Integrated authentication and authorization mechanisms using Firebase Authentication and OAuth for secure user access.
- Optimized API performance by implementing caching mechanisms and database indexing for high-speed transactions.
- Developed unit and integration tests using **PyTest** to ensure backend reliability and prevent regressions.
- Implemented **Web Sockets** for real-time communication, enhancing interactive features in the application.
- Collaborated in Agile teams, actively participating in code reviews, **sprint planning**, and **continuous integration workflows**.
- Deployed containerized applications using **Docker** and orchestrated them with **Kubernetes** for better **scalability**.
- Integrated third-party APIs and payment gateways to enhance application functionality and business logic.

## **Education:**

- Master of Science in Information Technology | University of Cincinnati | Cincinnati, Ohio.
- Bachelor of Technology in Computer Science and Engineering | Rajiv Gandhi University of Knowledge Technologies | India