

# Maheep Mahat

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## SUMMARY:

- Experience in all phases of the **Software Development Life Cycle (SDLC)**, which includes Integration, Implementation, Interaction, Business Analysis/Modeling, Documentation, and Testing of all software applications.
- Expertise in developing enterprise applications with various open-source frameworks like **Spring Boot, Spring MVC, JPA, JDBC and Hibernate**
- Experience in designing, deploying, and maintaining various multitude applications utilizing **AWS** services stack including EC2, S3, EBS, EFS, Elastic Beanstalk, Route 53, VPC, Cloud Formation, Elastic Cache, Cloud trail, SNS, SQS focusing on High Availability, Fault-tolerance, and Auto Scaling.
- Developed CI/CD pipelines for Java/Python applications which are deployed in **AWS & GCP** platforms using Jenkins and Helm charts.
- Experience utilizing tools in **Microservices** architecture applications using **Spring Boot, AWS, Rabbit MQ, Kafka, Cassandra, My SQL, Restful Web Services**.
- Developed and managed containerized applications using **Docker**, enabling consistent development environments and streamlining deployment processes across multiple environments.
- Extensive Knowledge and hands-on experience implementing PaaS, IaaS, SaaS style delivery models inside the Enterprise (Data center) and in Public Clouds using like **AWS**, Google Cloud, and Kubernetes.
- Created Single Page Applications by utilizing **React versions 16 and 17**.
- Experience with **MongoDB** development (reports, schema design, map reduce functions) and migrations from **SQL** relational databases to **NoSQL** databases (**MongoDB**).
- Hands-on experience in deploying web and **J2EE** enterprise applications on **WebSphere, Tomcat** server.
- Worked on **Azure**, High Availability Practices and deploying backup/restore infrastructure.
- Experience with **CI/CD** system with **Jenkins** on **Kubernetes** environment, utilized **Kubernetes** and **Docker** for the runtime environment for the **CI/CD** system to Build, Test and Deploy.

## TECHNOLOGIES:

Languages	Java, Python, SQL, JavaScript, NodeJS, AngularJS, ExpressJS, Typescript, HTML, CSS, XML, jQuery, JSON
Framework & Libraries	Spring Boot, Spring MVC, React, Angular, Node.js, D3.js, Express.js, Next.js, Django
Database & Tools	MySQL, PostgreSQL, MongoDB, Snowflake, JDBC, Log4J, Maven, Junit, Kafka, RabbitMQ, Kibana, Figma
CI/CD	AWS, Kubernetes, Jenkins, Docker, Git, Bit Bucket

## EDUCATION:

### MS in Computer Science

Virginia Tech, Blacksburg, VA

### B. Tech in Computer Engineering

Pune, Maharashtra

## EXPERIENCE:

CGIT, Blacksburg, VA

Jan 2022 – March 2023

### Full Stack Java Developer

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- Developed and maintained **RESTful APIs** for various services using **Spring Boot**, ensuring seamless integration and communication between services and external clients. Improved API response time by 25% through optimized query handling and caching strategies.
- Developed a high-efficiency search and indexing using Elasticsearch for a permission sensitive information dashboard, reducing data retrieval times by **4 seconds** through optimizing PostgreSQL queries & **Spring Boot's JPA**.
- Implemented security features using Spring Security, including OAuth2 and JWT authentication, to enhance the security of the application and protect sensitive data, reducing unauthorized access incidents **by 40%**.
- Designed a geospatial information visualization platform using Spring Boot and React by fetching the Inrix traffic data and generating layers using geoserver on top of Openlayers map and displaying locations using Fabric IDs.
- Increased data ingestion speed for Urban Affairs and Planning department's bicycle experiment, reducing from **6 hours to 4 hours 45 minutes** using pruning, partitioning, and Tuplex, improving workflow efficiency.
- Created a speeding and accident location information visualization app using geoserver generated layers for Virginia State Police utilizing Spring boot, React.js, and Leaflet, resulting in faster information lookup time by **15 seconds**.
- Created Docker containers and **Docker** consoles for managing the application life cycle.
- Experienced in developing test cases for **Unit Testing** using **JUnit**, Integration Testing and System Testing.
- Monitored the error logs using **Log4J** and used **JIRA** to manage the issues/project workflow.
- Used Amazon Cloud Watch to monitor AWS services and Amazon Cloud Watch logs to monitor application.
- Worked with Jenkins under the **CI/CD pipeline** providing continuous improvement to agile software development teams.
- Worked on **RESTful** web services, exclusively consuming **REST API** with Asynchronous behavior.
- Contributed to the **DevOps** to automate the build and deployment process using **Jenkins**, **shell scripting**, **AWS Lambda**, Cloud Formation Template.
- Designed and developed **Restful API** and services using best practices to interact within the **microservices** and with the front end.
- Developed static web pages, landing pages, category landing pages using content management system, **AEM 6.2**.
- Used **JIRA** platform to create, manage, monitor, and complete stories while working on Agile software.
- Involved in the development of user interface applications and professional web applications using **HTML5**, **CSS3**, **JavaScript**, **jQuery**, **Ajax**, **JSON**, **XML**, **Node JS**, **Bootstrap** and **ReactJS**.

Mediaocean Inc., Remote

July 2020 – Dec 2021

### Full Stack Software Engineer

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- Integrated Spring Boot applications with various databases (PostgreSQL, MySQL) using Spring Data JPA and Hibernate, ensuring efficient data management and retrieval. Designed queries and performed data migrations to support business requirements.
- Designed and improved APIs on Mediaocean's Prisma platform using Spring Boot, achieving a **15%** improvement in customer data fetching and rendering speeds by integrating Spring Data JPA for efficient data management.
- Implemented hot reloading functionality using Webpack and React Hot Loader in the development environment, reducing the iteration time by **20%** and accelerating the feature development cycle by allowing instant feedback.

- Deployed and monitored scalable infrastructure on Amazon web services (AWS) configuration management. Collaborated with the team to design and implement fully automated server build management, monitoring and deployment solutions spanning multiple platforms, tools and technologies including Jenkins Nodes/Agents, SSH, deployment and testing.
- Implemented a 2-step authentication via Email or Text OTP on Mediaocean's Prisma and Radia platform, slashing the document verification process by **25%**, leading to expedited document approval time for clients.
- Created logging functionality across a distributed microservice architecture using the Elasticsearch, Logstash and Kibana stack and monitoring ability using Prometheus resulting in **30% faster** issue diagnosis time.
- Experience setting up instances behind Elastic Load Balancer in AWS for high availability. Set-up databases in AWS using RDS, storage using S3 bucket and configuring instance backups to S3 bucket.
- Developed user interfaces using **HTML5, CSS3, AngularJS, JavaScript, JQuery** and **Ajax** with **JSON**.
- Deployed **Spring Boot**-based **microservices Docker** and **Google Cloud Compute Engine (GCE)** container using Google Cloud Console.
- Extensive Knowledge in AWS Cloud platform and its features which includes EC2, VPC, EBS, AMI, SNS, RDS, EBS, Cloud Watch, Cloud Trail, Cloud Formation AWS Config, Autoscaling, Cloud Front, IAM, S3, and R53. Implemented a Continuous Delivery pipeline with Docker and GitHub and AWS.
- Developed the automated unit test cases for the **Microservices** using **Junit** and deployed them in the **Jenkins** pipeline.
- Integrated **Spring DAO** for data access using **Hibernate** and used **HQL** and **SQL** for querying databases.
- Built **RESTful HTTP API** for client and financial data (**Nodejs**), as well as various **APIs** for other services.
- Used **Hibernate, JPA** object-relational mapping (**ORM**) solution, technique of mapping data representation from **MVC** model to **Oracle** Relational data model with an **SQL**-based schema.
- Troubleshoot and resolved issues related to Jenkins builds, deployments, and integrations, ensuring smooth and uninterrupted **CI/CD operations**.
- Used **GIT** as Version Control Tool and used **JIRA** tool for issue/bug tracking.

## Siemens PLM

### Software Engineer

May 2019 – April 2020

- Worked closely with DevOps engineer to create and manage cloud VMs with AWS EC2 command line clients and AWS management console.
- Used AWS Cloud Formation Templates to simplify provisioning and management on AWS.
- Refactored multiple subroutines in Polarion by employing algorithmic optimizations and reducing redundant operations, resulting in a **2 second** improvement in loading of complex workflow diagrams.
- Coded a logging tool for a Mendix application to provide real-time performance monitoring enabling the identification and analysis of system bottlenecks, improving troubleshooting by **up to 100%**.
- Developed a self-generating connector prototype for in-house microservices using the **Mendix** which enabled performing **CRUD** operations on all the microservices in the Siemens local network.
- Designed and developed dynamic and responsive software using Java, Selenium, JavaScript, and HTML.
- Worked on **AWS** Deploying, managing, and operating scalable, highly available, and fault tolerant systems and managed continuous delivery systems and methodologies on **AWS**.

## Recent Publications with links

- **Deciphering Emotional Responses to Music: A Fusion of Psychophysiological Data Analysis and LSTM Modeling**
- **Detecting Cyberbullying across multiple social media platforms using Deep Learning**

## Recent Achievements

- Awarded full scholarship of \$113,000 (including monthly stipend) for graduate program at Virginia Tech.
- Honored with the Mediaocean Rising Star award recognizing outstanding performance and contributions.