# Vinod Jatav

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## **EXPERIENCE**

#### **SIEMENS** | Software Engineer

Sept 2021 - Present | Gurugram, Haryana, India

- Developed Java Spring Boot applications to read/write real-time data from ctrlX core IoT devices using OPC UA protocol and stored time-series data in InfluxDB.
- Implemented Spring security and filters, ensuring secure data handling and communication.
- Conducted unit tests using Mockito to ensure application reliability.
- Developed user interfaces using React and TypeScript, including device monitoring dashboards with Chart.js.
- Improved UI test coverage from 52% to 85% and fixed SonarQube issues, enhancing code quality and maintainability.
- Streamlined form handling by implementing react-hook-form and Zod for complex validations.
- Converted client Docker apps to Snap containers for ctrlX core IoT devices.
- Developed Python Snap container for real-time data publishing using AWS IoT Core and MQTT, enabling seamless IoT device-to-cloud communication.
- Conducted a PoC to replace AWS MQTT with gRPC, deploying gRPC clients on IoT devices for real-time data transmission.
- Built and optimized APIs using GraphQL, Java Spring Boot, and MySQL to support frontend-backend data flow.
- Contributed to device management features, including software install, update, delete, and device enable/disable functionality.

## **QWIKSTUDIOS** | SOFTWARE ENGINEER INTERN Jan 2021 – Jun 2021 | Noida, Utter Pradesh, India

- Developed two core modules for Quick-Banner: a brand asset management system and an Unsplash API-integrated image search application. Utilized HTML, CSS, JavaScript, React.js and MySQL.
- Designed and implemented two REST APIs using Java and Spring Boot to interact with a MySQL database and power the Quick-Banners front-end application.

## **PROJECTS**

**DRAG & DROP STICKIES APP** | HTML, CSS, JAVASCRIPT, TYPESCRIPT, REACT.JS, REST APIS, SPRING BOOT AND MYSQL

• Designed and implemented a comprehensive sticky notes application featuring drag-and-drop functionality, enabling seamless note creation, deletion, and persistent data storage.

#### **BLOCKCHAIN BASED SECURITY SYSTEM** | REST API.

PRIVATE BLOCKCHAIN - HYPERLEDGER FABRIC

• Implemented a blockchain-based security system for storing confidential patient information within a hospital setting. Leveraged Hyperledger Fabric to create a private blockchain and deployed a custom smart contract on a test network.

### **EDUCATION**

## INDIAN INSTITUTE OF INFOR-MATION TECHNOLOGY, UNA

BACHELOR OF TECHNOLOGY IN CSE Jul 2016 - May 2020 | Una, HP, India

## **SKILLS**

#### **PROGRAMMING**

• Java | Python | JavaScript | TypeScript

#### **TECHNOLOGIES**

- Git | GitHub
- Jest | React Testing Library
- REST APIs | GraphQL | Microservices
- MySQL | InfluxDB (Time-series Data)
- gRPC | IoT Devices | AWS Cloud
- Object Oriented Programming (OOPs)
- Data Structure and Algorithms
- AWS IoT Core | AWS Timestream
- Docker | Snap Containers | Linux

#### FRAMEWORKS & LIBRARIES

- Spring | Spring Boot | Mockito
- React | Material UI | Chart.js
- react-hook-form | Zod | Mockito

#### COLLABORATION

- Jira | Confluence (Wiki)
- Agile/Scrum methodologies

#### **SOFT SKILLS**

- Client Collaboration | Problem-solving
- Teamwork and Cross-functional Collaboration | Agile Development

## **PUBLICATIONS &**

## **INVENTIONS**

- An intelligent surveillance system to overcome workers safety risk in thermal power plants | Sold to Siemens Energy.
- An intelligent behavioral system approach for CO2 mitigation at household level | Published on Siemens.

#### **CERTIFICATION**

• Certified SAFe® 6 Practitioner Issued by Scaled Agile Inc.