## Shritesh Jamulkar

## Passionate Developer

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## **Work Experience**

#### Samsung Research & Development Institute, Banglore Software Engineer

Banglore, Karnataka 07/2021 - Present

- LTE System Manager (LSM) Project In Management Software & Analytics Team
  - Worked as a Full-Stack Developer in JAVA Spring-based LSM project, specifically in FM (Fault Module).
  - Contributed to Python selenium-based automation testing for the entire Element Management System (EMS) software.

#### The Linux Foundation

Hyperledger Mentorship Program 2021 - Mentee

06/2021 - 12/2021

- Hyperledger Implement cross chain contract invocation using ServiceMesh way
  - Implemented cross-chain contract interoperability between Hyperledger Fabric and Hyperledger Besu in the 'ServiceMesh' way.
  - Developed cross-chain smart contract on Solidity with a 2-Phase Locking mechanism.
  - Developed sidecar relay to felicitate the contract invocation in Java spring framework.

**Zenithec Techware** 

Raipur, Chhattisgarh 04/2019 - 02/2021

iOS Developer

- PetBro Business iOS Application
  - Made the complete PetBro Business iOS Application on MVVM Architecture with RxSwift support.
  - Used RxMoya as a Network Abstraction Layer and RxNuxe for image caching and displaying.

Allsoft.co

Raipur, Chhattisgarh 07/2019 - 09/2019

Software Developer Intern

- GFI Auction
  - Worked on GFI Auction project based on Angular Frontend framework.
  - Integrated NgRx Store to provide reactive state management.

#### **Research Works**

## **Cross-Chain Contract Invocation with Hyperledger Firefly**

01/2023 - Present

In Collaboration with Nikos Kapsoulis (PhD. candidate at National Technical University of Athens)

Proposed a cross-chain invocation methodology with Hyperledger Firefly supernode.

#### **Blockchain-Based Digital Evidence Management System**

07/2020 - 12/2020

Guide: Dr. Preeti Chandrakar (Assistant Professor) at NIT Raipur

 Proposed a digital evidence management system for legal cases to store digital evidence in Hyperledger Sawtooth using IPFS in PBFT consensus mechanism.

#### **Echo Based Real-time Attendance System**

08/2020 - 12/2020

Guide: Dr. Jairam Naik (Assistant Professor) at NIT Raipur

• Made an Echo-based attendance system using Quiet Modem Project to take attendance of all the available listeners in one shot.

#### **Education & Cerifications**

#### **Masters of Science, Trinity College Dublin**

09/2022 - Present

Computer Science - Future Networked Systems

#### **Bachelor of Technology, NIT Raipur**

08/2017 - 05/2021

Computer Science and Engineering Cumulative Performance Index: 7.68/10 Final Semester's Performance Index: 9.27/10

- Associate Android Developer Google Developers
- Classical Cryptosystems and Core Concepts Coursera

## **Key Projects**

#### **Dublin Attractions**

A Web application to find nearby attractions like artworks and museums from the current location in Dublin city.

- Contributed to the creation of knowledge graphs using ODFs and Ontologies using OpenAPIs and GraphDB.
- Developed front-end WEB GUI using the React framework.

#### **Open Journal**

A decentralized platform for researchers to publish their work with fellow researchers and also review the works of other researchers to ensure trust and transparency between all the researchers.

- Developed Solidity-based smart contracts for Ethereum Blockchain Network.
- Developed front-end Web Interface using the Angular framework.

#### **Lua Parser + Interpreter**

A Lua Parser + Interpreter using LPegLabel with an error recovery mechanism.

• Designed a simple compiler based on a specific grammar definition in Lua Programming language with the help of LPegLabel.

### HideKeyboardWhenTappedAround(iOS)

A Library for hiding the keyboard when the user tapped anywhere on the screen on iPhone.

 Published an iOS Swift-based library for hiding the keyboard when the user tapped anywhere in the UIViewcontroller.

## **Technical Skills**

#### **Programming Languages:**

Proficient in Java, Javascript/Typescript, Python

Familiar with C/C++, Swift, Kotlin, C#, SQL, Bash, Golang, Solidity, Ruby, Lua, Rust.

#### Web Technologies:

HTML/CSS/SCSS, Nodejs(MERN & MEAN Stack), Django/Flask, REST/Graphql/gRPC/Web Sockets/MQTT, React(Redux/Mobx/Recoil.js) /Angular (NgRx)/ Vue.js

#### **Databases and Message Queue Technologies:**

MySQL, Postgres, MongoDB, Cassandra, Redis, InfluxDB, Prometheus, GraphDB, Apache Kafka, RabbitMQ

#### **Mobile Technologies:**

Native iOS(Swift)/Android(Java/Kotlin), React-Native(Cross-Platform), Flutter(Cross-Platform)

#### **Deployment & CI/CD Monitoring Technologies:**

**Docker:** Docker with docker-compose and CMD;

**Kubernetes:** Kubernetes Pods, Deployments, Service, Jobs & Cronjobs, Service Monitors, Ingress Controllers, Load balancers, SSL certificate, Cluster Issures, API Gateways(Traefik); Kubectl, Kubens, Helm, Minikube;

CI/CD: Github Actions, Circle CircleCI, Travis;

Monitoring: Grafana (with Prometheus or InfluxDB), Honeybadger.io, Firebase Analytics & Crashlytics;

#### **Cloud/Deployment Platforms:**

**Google Cloud Platform(GCP):** GCP Cloud Storage, GCP Kubernetes Engine, GCP OAUTH APIs, GCP Compute Engine;

**Firebase:** Firebase Authentication, Firebase Storage, Firebase Firestore Database, Firebase Real-Time Database; Firebase Analytics & Crashlytics; Firebase Admob;

**Amazon Web Services(AWS):** Lamda functions, S3 buckets, Elastic Kubernetes Service(EKS), Elastic Container Registry (ECR), Elastic Beanstalk(EB), Amazon API Gateways;

Microsoft Azure: Azure Kubernetes Service(AKS), Azure Container Registry (ACR);

**Digital Ocean:** Digital Ocean Kubernetes, Digital Ocean Droplets, Digital Ocean Serverless - Functions, Digital Ocean Apps;

**Vercel & Netlify:** Static site deployment, Edge CDN networks;

#### **Blockchain Technologies, and Others:**

Ethereum Solidity, Hyperledger Fabric / Sawtooth / Firefly / Burrow, Git, Unity3D.

## **Position of Responsibility**

# **Technocracy - Technical Committee of NIT Raipur** *Tech Lead*

Raipur, Chhattisgarh 01/19 - 04/21

- Aavartan Android Application
  - Developed NIT Raipur's Tech Fest's mobile Aavartan application using Native Android Development which has features like Live event tracking and connecting with new people and much more.
- Kleos2k18 Android Application
  - Developed a Live Quiz application for NIT Raipur's Flagship Triva Event using Django framework and Native JAVA mobile application.

## **Talks and Bootcamps**

- Given a talk on "Python in Blockchain Interoperability" at Pycon Limerick 2023 on March 25th, 2023.
- Given a talk on "Building insurance application on Corda Blockchain using Java" at Dublin Java User Group(DubJUG) on March 22nd, 2023.
- Given a talk on "Unlocking the power of Knowledge Graphs" in Devfest Raipur in Machine Learning Track with GDG Raipur on December 16th, 2022.
- Given a talk on "What is an API?" in I/O Extended Web Edition with GDG Raipur on July 10th, 2022.
- Given a talk on "Managing background work on Android" in I/O Extended with GDG Raipur on June 12th, 2022.
- Conducted Android Study Jams in NIT Raipur on course Android Kotlin Fundamentals course on date March 15th, 2021.
- Conducted a Bootcamp at Facebook Developer Circles Raipur on Blockchain-based Decentralized Application development in Ethereum Blockchain on March 20th, 2020.

#### **Achievemnts**

- Finals: Smart India Hackathon 2019.
  - Airport-Licensing DAPP: Developed a decentralized application for Aerodrome Licensing for Airport
    Authority of India(AAI) for Aerodrome Licensing using Hyperledger Fabric with React Frontend and
    Android Application for the on-site officer.
- Winner: Codeutsava 4.0 Hackathon in Blockchain track.
  - Airport-Licensing DAPP: Developed a decentralized application for Aerodrome Licensing for Airport Authority of India(AAI) for Aerodrome Licensing using Hyperledger Composer with React Frontend.
- Finals: Smart India Hackathon 2020.
  - Choukidar Chrome Extension: Developed a chrome extension to detect Top 10 OWASP Security vulnerabilities in a WebSite.
- Fourth Winner: Dot Slash Hackathon held at NIT Surat.
  - **dEmergency:** Developed a decentralized SOS triggering service for medical emergencies.
- Winner: Codeutsava 3.0 Hackathon in Blockchain track.
  - dOrgans: Developed a blockchain-based dApp in which if a person needs an organ he can register
    on the platform and wait until a cadaver organ(organ from a person who is dead and willing to donate
    his organs) is available, all this data will be stored on Ethereum based smart contract so that this
    sensitive information is tamper-proof.
- Winner: Application Development contest held IIIT Raipur.
  - CG Tourism App: Developed a React Native-based cross-platform application for Chhattisgarh Tourism Board with Django Backend.