

Pritam Prasad

6+ years of experience in designing/hands-on coding cloud-native systems, with area of interest in web security and cryptography. I bring in a strong comprehension on Backend API Development, scalable-systems design and monitoring, domain-thinking, and understanding of processes in healthcare and fintech domain.

WORK EXPERIENCE

Setu | Investments BU | SDE-III

Bengaluru
Mar-2021 - Present

- End to End Design & development of Fixed Deposit(FD) System [FD-Gateway(API Offering), Google Spot (Playstore offering), Standalone PWA(default UI offering), Web-SDK, webhook notifications)]
- API Integrations with 4 supply-side partners(Bank APIs) and multiple demand-side clients.
- Multiple Payment stack API integrations and FD's Payment strategy.
- FD Reconciliation process and lambda based Automated Reporting service which removed daily ~1Hour manual work.
- Gitlab & Terraform based CI/CD setup for build and deployments on ECS, reduced redeployment & rollbacks to automated/single click operation.
- Hot configurations reload and Vault Integration allowing to update application without restart.
- eKYC/cKYC module re-design(UI & Backend) resulting in 2.5X less load time and ECIES based encryption over HTTPS for PII data.
- Monitoring and Alerting Infrastructure, Architectural Design and documentation(RFCs, ADRs).
- Multitenant DB with expiration policy for User Data storage.
- Platform library optimisations for logging, Auth, Error handling and Metric Collection.
- Tech learning sessions, Tech-Interviews, mentoring juniors.

JP Morgan Chase & Co. | API Mgmt. Platform | SDE-II

Bengaluru
Jan-2019 - Mar-2021

- Worked on release-management & development of API tooling for JPMC Central API Management Platform.
- Development of Maven plugins for OpenAPI/Swagger custom validation and Scoring.
- Java Libs to integrate A Spring-boot app to JPMC IDP through OpenAPI/Swagger Specs.
- REST Spring-boot backend to simulate above maven-plugins/java-lib over https
- BDD Integration test-suite(cucumber based) generation from OpenAPI/Swagger
- Architectural design documentation, release notes, user guide.
- Mentoring other teams on Firm's API design principles, API-Tooling product demo design.

Philips Healthcare | Radiology Solutions | Sr. Software Engg.

Bengaluru
Jun-2015 - Dec-2018

- Feature development & Bug-fixes in MRI System:
 - Queue based system to authorize 3rd party remote calls to MRI devices.
- Design & Development of Distributed protocol sharing & management platform for MRI devices:
 - Protocol to Internal Model mapping interface, Storage management of protocols with PostgreSQL.
 - REST API to allow CRUD on MRI Exam Protocols, org and role based access control.
 - Development of secure communication channel between MRI devices and REST API(jsch lib).

OTHER PROJECTS

Crypto Lending

github.com/pritamprasad/crypto-lending

A demo-ready Money Lending platform where collateral are Crypto tokens and loan outcome management(defaulted/repaid) is governed by EVM Smart Contracts. The project also provides configurations to create and manage your own private EVM blockchain with block-chain visualizer integration. It connects lenders to borrowers in a P2P Defi manner.(EVM, Solidity, Flask, ReactJS)

ECIES with Flask, ReactJS and WASM

github.com/pritamprasad/poc-encrypt-flask-reactjs

An example on how ephemeral asymmetric key based ECIES encryption/decryption can be done between a flask server and a react app. for performance reason a Web-Assembly compiled rust library is used as opposed to a JS lib.(ecc, wasm, js, python, rust)


Distributed E-Commerce system

github.com/pritamprasad/e-commerce


An experiment with synchronous system and event driven system using e-commerce as an example (Spring-Boot, ReactJS).

CONTACT DETAILS


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TECH STACK

Primary Languages: Python, Java, Go, Typescript

Secondary Languages: Solidity, C#, Rust, Shell-script, (html/css /js/wasm)

Frameworks: Flask, Spring-Boot, ReactTS, fastapi

Persistence: Postgresql, Redis, Elasticsearch, DynamoDB, Cassandra

Messaging: Redis-Pubsub, Kafka, RabbitMQ

Cloud: AWS, Cloud-Foundry, GCP(basic), Cloudflare

Security: OAuth2, OIDC, JWT, ECC-cryptosystem, Keycloak

APIs: OpenAPI, GraphQL, gRPC(basic)

DevOps: Docker-Compose, Terraform, K8s(basic), Gitlab-pipeline, Jenkins, Github-Actions

Others: Celery, ELK/Grafana (lucene query and visualization)

EDUCATION

National Institute of Technology Silchar

B.Tech.(Computer Science & Engineering)

Assam, India
Jun-2011 - Mar-2015