Pritam Prasad

6+ years of experience in designing/hands-oncoding 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 proceses in healthcare and fintech domain.

WORK EXPERIENCE

Setu |Investments BU| SDE-III
Bengaluru
Mar-2021 - Present

- E2E Design & development of Fixed Deposit(FD) System [FD-Gateway(API Offering), Google Spot (Playstore offering), Standalone PWA(default UI offering), Web-SDK, webhook notifications)]
    - FD Gateway Integrations with Bank APIs and Payment stacks
    - FD Reconciliation process and lamdba based Automated Reporting service
    - Gitlab & Terraform based CI/CD setup for build and deployments.
    - Hot reload for configurations and Vault Integration, pluggable lib for masking PII data
    - eKYC/cKYC module design for FD verification(ECIES for encryption)
    - Monitoring and Alerting Infrastructure, Architectural Design and documentation(RFCs, ADRs).
    - Code migration from gunicorn to fastapi(uvicorn)
- 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 management & development of API First Design tooling for JPMC Central API Management Platform.
    - Development of Maven plugins for OpenAPI/Swagger custom validation and Scoring.
    - Java Libs to integrate A SpringBoot app to JPMC IDP through OpenAPI/Swagger Specs.
    - REST Spring-boot backend to simulate above maven-plugins/java-libs over https
    - BDD Integration test-suite(cucumber based) generation from OpenAPI/Swagger specs, and running on a dockerized container.
- 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).

CONTACT DETAILS

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TECH STACK

Languages: Python, Java, Go, Javascript, Solidity, Rust

Frameworks: Flask, Sring-Boot, Django, ReactTS, fastapi

Deployment: Docker, Docker-Compose, Terraform, K8s(intermediate), Gitlab-pipeline, Jenkins, Github-Actions

Persistance: Postgresql, Redis, Elasticsearch, MongoDB

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

Security: OAuth2, OpenID-connect, Custom-JWT, ECC-cryptosystem

Others: Keycloak, Celery-Beat, OpenAPI, Kibana, Grafana, PlantUML

PROJECTS

Crypto Lending
github.com/pritamprasd/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 blockhain 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/pritamprasd/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/pritamprasd/e-commerce

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

Covid Dashboard
github.com/pritamprasd/covid-dashboard

Dashboard to visualize Covid19 India Data, with User login/Registration utlizes MaterialUI. (Java, SPring Boot, ReactJS, Postgresql).

EDUCATION

National Institute of Technology Silchar
Assam, India
Jun-2011
- Mar-2015

B.Tech.(Computer Science & Engineering)