

Nikhilesh Yadav

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WORK EXPERIENCE

FOUTNANE INC | SOFTWARE ENGINEER

Hyderabad, India | Dec 2022 - f

- Developed a search algorithm to search and reserve parking spaces and reduced booking screen load time from 3-8 seconds to instant, significantly improving user experience. *algorithms, Segment-Trees*
- Developed and managed a monitoring service for real-time monitoring of errors, logs, and business events in a parking management system. *grafana, APIs*
- Took part in bootstrapping and implemention a Jeera-like multi-tenant tax process management system for a large finance company. Took part in decision-making for project setup, authentication flow implementation, and dashboard creation. *ChakraUI, ReactJS, Knex, react-query*
- Managed and monitored cloud infrastructure for a booking management service with a monthly revenue of \$1.5M. Took ownership of migrating production database to Managed Cloud SQL on GCP.

MADPAT GMBH | SOFTWARE ENGINEER

Leonberg, Baden-Württemberg, Germany | May - Nov 2022

- Worked on core web technologies like **Nodejs, Mongodb, Typescript, Javascript, Reactjs, MaterialUI, EJS, Angularjs, Postman, Jest, Mocha, Docker, Bash, Expressjs** etc.
- Extensively written unit test for every change using **Jest** and **Mocha**. Did Test Driven Development on **webstorm**. *Jest, Mocha, webstorm IDE*.
- Written migration script to transform documents in **mongodb** production. *mongodb*.
- Took responsibility for migrating **datagrids, forms** and dashboard components from **angularjs** to **reactjs** for a large scale Sales and promotion management software. *Reactjs, MaterialUI*.
- Was responsibly involved in finding **security issues** in applications. **Hunted bug** which allowed full compromise of admin accounts (leaked secret keys), among others. *Postman*.
- Managed **deployment pipeline** on **gitlab**. Added Husky in build pipeline. *Husky*.
- Extensively used debugging tools like **HTTP-toolkit, Chrome-devtools, Webstorm-IDE, Postman** etc.
- Worked on improving **development setup** for hybrid angular-react frontend. **Enabled hotloading**, setup husky hooks. *Webpack, Husky, git*.
- Was responsible for design/arch decisions for the frontend keeping future migration above this foundational code. Introduced **rest-hooks, joi, runtime-type-validation** in typescript, and helped in restructuring the project.
- Took shared responsibility of upgrading backend tech stack from nodejs v6 to v14, and meanio to expressjs.
- Helped **onboarding new joinees**, improved onboarding routines to make it easy. Written **bash** script to **automate** local setup. *Bash, Docker, .devcontainer*

1DIGITALSTACK.AI | FULL STACK ENGINEER

South Delhi, Delhi | June - Apr 2022

- Worked on a data aggregation and visualization dashboard in a team of 2 developers. Used *pug, express, nodejs* and *postgres* as technology stack. Co-implimented multi-tier caching using *Redis* and *Dexie* in frontend.
- Co-implemented an authentication server using **Keycloak**. Implemented complete authorisation mechanism in this application, providing per-client multi user system with user specific permission using **OAuth2.0 + JWT + Passport**.
- Designed and implemented **Open-API+rabbitMQ** service which collects and process data from 3rd parties, intensively using **IPC**.
- Designed and implemented **Credential Vault** to store sensitive client data used by various applications in organisation. Used double symmetric encryption to ensure all-party liability for maximum robustness.
- Created and managed **microservice** as an upgrade to existing notification configuration management service across all products.
- Created and managed web experiments which resulted in **more than 160 percent** increase in web to app installs.

GEMINI SOLUTIONS PVT LTD. | SOFTWARE DEVELOPMENT INTERN

Gurugram, India | Jan - Jun 2021

- Written Scripts for automatic testing of autosys job definitions being deployed into the production server. **Perl.Bash**.
- Created Automated testing suite for frontend applications using cypress in gitlab pipline. **Typescript. Mocha. Cypress**.

SKILLS

- **Languages:**Solidity, Typescript, JavaScript, Python, Bash, C/C++, SQL, Text parsing using pegjs
- **Web Development:**Chakra UI,Nestjs , React, HTML5/CSS3, SASS/LESS, Material UI, WRTC p2p, Socketio, Bootstrap, JQuery, Pug, Express, OAuth, JWT, OpenAPI3.0, tailwind
- **Frameworks and Libs:**Postgress, Firebase, webpack, babel
- **Tools and Tech:**Linux,Nodejs, AWS(ec2, lambda, s3),Git, Electron, Docker, Computer Networks, HTTP , Cryptography [signatures, asymmetric/symmetric], WSL, SSH

PROJECTS

SECRETS VAULT

TYPESCRIPT, POSTGRESS, CRYPTO, OPEN-API

Designed and developed a scalable solution to store organization secrets with multi-layer encryption and decentralized ownership of the recovery keys using shamir's secret sharing(SSS) algorithm. Focused on making it horizontally scalable.

JOB SCHEDULER SERVICE

NESTJS, TYPESCRIPT, POSTGRESS, CRON, RABBITMQ

Created a microservice to initiate and monitor organization level tasks based on cron/event based triggers. Focused on failure recovery and Handling of missed triggers. Used custom URIs to encode source of job payload as well to define triggers. This approach allows easier extension, usage as well as management of this service. eg. for a row in database `pgrow://<schame-name>/<table-name>?<column>=<value>` or for JSON `data:application/json;`,

OTHER PROJECTS

WEBRTC, WEBSOCKET, SOCKETIO, STREAMING, ENCRYPTION, PROXY, OPEN-SOURCE

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|--------------------------------|--------------------------|-------------------|---------------------|---------------|
| • Ebullience tech fest website | • Whatsapp eWay-bill bot | • VPN Jump Server | • e2e terminal chat | • talk-to-gdb |
| | | | | • C++ REPL |