# Shivam Rathore

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*"Loyalty is a two-way street. If I'm asking for it from you then you're getting it from me."*

## EDUCATION

### NIT BHOPAL
B.Tech • Computer Science
Grad. May 2019 • Bhopal, MP
Gross GPA: 8.23 / 10.0

### JAORA PUBLIC SCHOOL
High School
Grad. May 2015 • Jaora, MP
$12^{th}$ %: 92.6

## LINKS

Webpage: shivamrathore.com
Twitter: @010Shivam
GitHub: @Shivam010
GitLab: @Shivam010
LinkedIn: @shivam010
HackerRank: @Shivam010

## SKILLS

### PROGRAMMING

**Languages & Databases:**

*GoLang* • Python • *JavaScript*
GraphQL • *TypeScript* • C / C++
*Node.JS* • Shell Script • HTML/CSS
MySQL • *PostgreSQL* • Redis

**Frameworks & Platforms**

*Golang's Gin Gonic* • GoFiber
React • *Next JS* • CapacitorJS
*Cloudflare* • *GCP* • *Vercel*

**Tools, Technologies & others:**

*gRPC* • Protocol Buffers • *REST APIs*
Docker • *git* • *DevTools*
*TailwindCSS* • MicroFrontend

**IDEs & Editors**

*JetBrains IDEs:* GoLand • DataGrip
WebStorm • *VS Code*

**Familiar Environments**

*Mac* • *Linux* • Windows

## EXPERIENCES

### FOUNDER & CTO Divity.app
Feb 2023 – Present

- *Single-Handedly designing and developing a complete SaaS product*
- It's a productivity app that helps users organize their schedules efficiently to achieve more in less time.
- *Technologies – Golang , Next.js , React.js , Typescript , TailwindCSS , MySQL, REST APIs , Cloudflare Pages , Cloudflare R2 , GCP*

### LEAD SOFTWARE ENGINEER Appointy
Aug 2021 – June 2023

- Lead the design & development of our new **SaaS development platform** – *Saastack using Domain Driven Design in Golang, PostgreSQL and NextJS*
- Liaising with team members, management, and clients, and **reviewing code** to ensure projects are completed to the standard
- Lead the design and development of different **architectural layers'** like Authentication, Roles and Rights, Licensing, transport and comm layers.
- Designed and developed **a secure service-aggregator module** in Golang using **circuit breaker design pattern.**

### SR. SOFTWARE ENGINEER Appointy
Jan 2020 – Aug 2021

- Single Handedly Designed & Developed the **customized booking solution** & availability logic for **our biggest client – Mathnasium** in Golang & PostgreSQL
- Designed And developed a **generic solution** for **data tracking** and **reporting system** using NextJS, Golang and PostgreSQL.
- Developed a generalized solution for the **identification and protection of user's PII**: Personally Identifiable Information
- Worked on **Memory and CPU usage analysis** to optimize server resource utilisation and increase RPS for the services.
- Provide **Secure, Clean and Efficient code review** in the team
- *Technologies – Golang , gRPC , Protocol Buffers , REST APIs , PostgreSQL , Next.js , Docker , GCP services like PubSub, Traces and Logs management*

### SOFTWARE ENGINEER Appointy
Jul 2018 – Jan 2020

- Structured & Implemented several internal services, including the **Core Scheduling Services**, like **appointments** and meetings scheduling, & **availability**.
- Designed & developed a **PostgreSQL typesafe ORM for GoLang**, named as *Chaku: described in Projects section.*
- Helped in designing a Go-framework for building **a spec-compliant GraphQL server in Go** by extending & analyzing an existing framework *samsarahq/thunder*
- Developed various standalone services to **send & manage** notifications e.g. **emails & sms & in-app** for various enterprise projects.

## SKILLS

### ARCHITECTURE

Micro-services
Using REST • gRPC • GraphQL

Component Based
Using Domain Driven Development

Agile Development Processes

## COURSEWORK

### UNDERGRADUATE

*Data Structures & Algorithms*
*Functional & Meta Programming*
Theory of Computation
*Concurrent & Asynchronous Prog.*
Compiler Design
Operating Systems
Computer Networks
*Unix Tools & Scripting*
*Code Generation & Automation*

## PROJECTS

### POSTGRESQL TYPE-SAFE ORM  Project Owner

- Designed & developed a PostgreSQL type safe ORM for GoLang *using Protocol Buffers as its IDL* - Interface Definition Language,
- The key features include: *Type-Safety* using code generation, *run-time query generation*, *high performance* for a complex IDL structure, and a *simplified database migration* process.
- It helps in *saving a large amount of development time* by eradicating SQL-query writing time with the set of type-safe functions & has *saved ~80%* of developer's work in the micro-service's storage management.
- At Appointy, we call it *Chaku - Indian Knife for Database*. And is the basic building block of all micro-services involving database interactions at Appointy

### GOOGLE REWS MANAGEMENT  Developer

- Google REWS Management by Appointy *manages Employees' perks and benefits* (free-paid and all) in Google.
- Helped in designing the *micro-services* and the backend logic based on the *domain-driven design*.
- Developed & designed *core-essential services & workflows* like appointments bookings & service availability, overall Reporting, *background tasks & CRON jobs-workflows*, membership & staff managements to name a few.
- Integrated many tools and helped in some of them, like: Google Calendar, G-Suit, Stripe payments, Google docs and sheets.
- Project is currently running *live on all Google locations* throughout the globe.

### BACKGROUND WORKFLOW MANAGER  Owner & Maintainer

- It manages all of *Appointy's notification channels*, like *email, SMS, web alerts, calendars, mobile notifications*.
- We also use it to handle some extensive *data reporting, & processing flows*.
- Along with all that, the *payment subscription & membership models* are all also, running in the Background manager.
- It is completely written in *Golang and uses gRPC protocol & NATS messaging system for communication, and PostgreSQL for storage*.
- It is durable, scalable and highly available. It provides a very concrete & precise control over the concurrently executing workflows.

### IAM - ROLES & RIGHTS POLICY MODEL  Developer

- IAM - Roles & Rights Policy Model is the core service for *managing and evaluating* user's *access and permissions* in the product.
- Maintained & owned the *Role creations and evaluation* module in the service and help develop the user's access control model.
- It uses *pattern matching and identification* for calculating and evaluating user's *access to any endpoint* & even to the *individual argument level*.
- Written in *Golang*, it uses a *3 level storage system*, with *in-memory as primary* and *Redis as secondary* cache, and *Postgres* database as the main storage system.
- In Frontend, the component integrates with the API and is written in NextJS.

## INTERESTS

Marvel comics
Rowling's Wizarding World
Mystery-Thriller-Suspense Novels
Exploring Google Maps
Space Science & Geography
Adventure activities
Word & Number Games

## OPEN SOURCE PROJECTS

### nitishm / go-rejson (MAINTAINER)

**Project Link:** https://github.com/nitishm/go-rejson

- Go-rejson is a GoLang client for *RedisLabs' RedisJSON module* with support for *multiple redis clients: **go-redis/redis*** and ***redigo/redis***.
- Developed in Golang and is used in over 50+ projects!

### shivam010 / bypass-cors (MAINTAINER)

**Project Link:** https://github.com/Shivam010/bypass-cors

- A proxy server **to bypass CORS** (Cross-Origin Resource Sharing) enabled server's APIs.
- It helps developers **easily test different APIs** without having to worry about the CORS errors.
- It provides a very easy to use **user-friendly API** interface.
- Written in Golang and used by over 20+ developers.

### xqueries / xdb (CONTRIBUTOR)

**Project Link:** https://github.com/xqueries/xdb

- An **experimental distributed SQL database**, with focus on a readable code-base before performance.
- It's written completely in Golang and is based on **SQLite database** and uses **raft consensus protocol** to keep distributed nodes consistent.
- It is originated as a fork from the original work of **tomarrell's lbadd**

### nitishm / vegeta-server (CONTRIBUTOR)

**Project Link:** https://github.com/nitishm/vegeta-server

- A RESTful load-testing API server for **tsenart/vegeta**, **a load testing tool**.
- It provides a secure **user-friendly REST API model** for load testing.
- It also allows users to **automate their vegeta load tests** by integrating it with the CI/CD.
- It is also completely written in Golang.

### shivam010 / go-freeGeoIP (MAINTAINER)

**Project Link:** https://github.com/Shivam010/go-freeGeoIP

- A Golang client for *Free IP Geo-Location API service: **freegeoip.app/*** with inbuilt support of caching.
- It's caching mechanism helps user's overcome the 15k per hour rate limit of the platform.
- Written in Golang and used by over 10+ projects.