

# 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<sup>th</sup> %: 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

### BUILDING SAAS APPS DIVITY.APP | LAUNCH.WATCH

Feb 2023 – Present

- **Single-Handedly designing and developing complete SaaS products**
- Divity.app is a productivity app that helps users organize their schedules efficiently to achieve more in less time.
- Launch.watch was a product launch analysis tool (right now it's on hold).
- **Technologies** – GoLang, Next.js, React.js, Typescript (and JS), TailwindCSS, MySQL, REST APIs, Cloudflare Pages, Workers, R2, GCP, Vercel

### FREELANCING WEB-APPS, BACKEND SERVERS, LANDING PAGES, ETC

Dec 2022 – Present

- Developed and designed a lot of web-apps, backend app services, landing pages for various clients based on the requirements!
- Last one was during June - August (early) 2023, I completely developed and designed a web-app from end-to-end: **preview.zeropercent.co**
- **Technologies** – Next.js, React.js, Golang, Typescript (and JS), TailwindCSS, MySQL, Postgres, SQLite, APIs, Cloudflare & Vercel services

### 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**.
- **Technologies** used mainly were Golang, gRPC, Protocol Buffers, GraphQL, REST APIs, PostgreSQL Clusters, Redis, GCP services, memcache, etc

### 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 a **Secure, Clean and Efficient code review** in the team
- **Technologies** – Golang, gRPC, Protocol Buffers, REST APIs, PostgreSQL, Redis, Next.js, Docker, GCP services like Cloud Functions, PubSub, Traces, Logs management, etc

## 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*

## EXPERIENCES (CONT'D.)

### SOFTWARE ENGINEER APPOINTY

May 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.
- Worked on various **plugins and tools to automate repetitive** processes

## 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 interaction there!

### GOOGLE REWS MANAGEMENT DEVELOPER

- It **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** across 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.

## INTERESTS

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

## PROJECTS (CONT'D.)

### 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.
- Frontend is written in Next.js and React.js!

## 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-freeGeolIP MAINTAINER

Project Link: <https://github.com/Shivam010/go-freeGeolIP>

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