

PERSONAL PROFILE

Saif is a hard-working individual with confidence in software design and development, troubleshooting and working in teams. He is highly passionate about computer science, and often enjoys teaching himself various different concepts during his free time. Saif has designed and developed projects in various different fields, including creating servers in multiple server software languages such as Python, NodeJS and Go. He is also experienced in low-level high performance languages such as C++ and Rust. Saif has taught himself a wide range of these skills within programming, and he has worked in large teams with other software developers.

SKILLS

- Highly experienced in Typescript, Go, Python, C#, Java and Rust.
- Highly confident in server-side REST API frameworks such as NodeJS + Express, Golang, Ruby on Rails, and Python Flask/Django.
- Highly confident in SQL/NoSQL databases such as MySQL, SQLite (SQL), and MongoDB (NoSQL.)
- Highly experienced in advanced programming concepts such as object-oriented programming, asynchronous/concurrent programming and functional programming.
- Saif is able to design and implement complex solutions for various different issues that may arise during a project.
- Highly confident in cybersecurity and different user authentication methods such as JWT (JSON Web Tokens) and symmetric (AES)/asymmetric (RSA) encryption.
- Saif has extensive experience administrating linux systems, such as Ubuntu servers to work with server applications such as his own, or existing server builds such as MySQL.
- Saif has experience working with Docker, creating his own tailored Docker images, and frequently uses Docker in his everyday personal projects.

PROJECTS

URL Shortener (MERN Stack + Typescript):

Project Description:

This project is a simple URL shortener which uses what is known as the **MERN** stack (MongoDB + Express + React + NodeJS.) The project will accept user input of a URL, and will output a link that when accessed, will return a redirect to the original link entered..

Skills Demonstrated:

- MongoDB
- Express + Node
- React
- Typescript
- REST API

Repository Source Code: <https://github.com/saifsuleman/BetterShortener>

JSON Web Token Authentication Service (Go):

Project Description:

This project is a JWT authentication service. It holds a database of users, and after validating user login, it generates an asymmetric JWT access token using a REST API written in Golang. Services can validate access tokens without needing to query the server, by asymmetrically validating the signed token.

Skills Demonstrated:

- JWT Authentication
- Asymmetric RSA signing
- Go
- REST API endpoints

Repository Source Code: <https://github.com/PlasmoidIO/qbit>

Chat Application (Go + React):**Project Description:**

In this project, Saif uses websockets and JWT authentication schemes to facilitate chat between multiple concurrent users. The server will host the websocket backend, and host the prebuilt static files for the frontend that were written in React. This project makes use of Go embeds to store all these files in a single native executable.

Skills Demonstrated:

- Go
- React
- REST API websocket endpoint

Repository Source Code: <https://github.com/saifsuleman/gochat>