# SANKALP ACHARYA

✉ sankalpacharya1211@gmail.com | ▐ LinkedIn | ⌂ GitHub | </> LeetCode | ⚲ Bengaluru, India

EDUCATION

Indian Institute of Technology, Bhilai   Durg, India
*B.Tech. in Computer Science and Engineering; **GPA: 8.94/10***   Nov 2020 – May 2024

Relevant Coursework: Data Structures, Algorithms, Operating Systems, Computer Networks, Database Management Systems, Distributed Systems Cryptography, Network Science.

SKILLSET

Languages/Databases: HTML, CSS, Typescript, C, C++, Go, Bash, SQL, Redis
Frameworks/Libraries: Tailwind, React, Next.js, NetworkX, NetworKit, Gin, Go-Fiber, Zap, Viper
Tools: Docker, Git, Kubernetes, AWS, RabbitMQ, Swagger, Postman, Prometheus, Grafana, WireShark, LaTeX

WORK EXPERIENCE

Zocket AI   Bengaluru, India (Remote)
Backend Developer Intern   Mar 2023 – Jun 2023

- Designed and implemented a **microservices-based** application from scratch using **Go**. Deployed services on **AWS Cloud** using **EC2** instances, **CloudWatch**, **EKS**, **Secrets Manager**, etc.
- **Migrated** and **refactored** the existing APIs written in **NodeJS** in a monolithic architecture to a microservices-based architecture in **Go**; using frameworks like **Gin**, **Zap**, **Viper**, etc.
- **Engaged in collaborative meetings** with cross-functional teams and project coordinators, actively seeking guidance, addressing queries, and collectively brainstorming strategies to achieve a **low latency application**.
- Reduced **latency** of application by **78%** and improved **test coverage** by **42%**.

Technologies Used: *Go | AWS | REST−APIs | Docker | Kubernetes | GitLab | Postman | Swagger*

PROJECTS

URL Shortener [Ongoing] | *GitHub*
- Designed a URL Shortener in **Go** using **Go-Fiber** & **Redis**. Implemented a **rate-limiter** on *client IPs* using a **fixed-window counter** algorithm.
- Deployed the application locally using **Docker**. Used **Postman**, **Apache JMeter** for **API Load Testing**.
- Exposed application, database & host metrics to a **Prometheus** instance. Later used Prometheus as a data source for **Grafana** to *query* & *monitor* these metrics & send alerts.

Synthetic Social Network Generator | *GitHub*
- Synthetic social networks are used to **test & validate** network analysis methods and **generate datasets** for training models.
- Used **Stochastic Block Model (SBM)** as the initial network & applied algorithms for **triadic closure** & **preferential attachment** to improve the **clustering coefficient** Implemented using **NetworkX** & **Python**.
- Managed to perform **62%** better on average when compared to existing network generators.

ACHIEVEMENTS & PORS

ACM-ICPC Regionalist 2022: Participated in the *regionals* round of *ICPC-2022* held in *Kanpur*. Ranked 89th in the *preliminary round*.
Google HashCode 2022: Ranked *AIR* 549th in Google HashCode 2022 among $10,000$ candidates with a score of 2024585.
Class Representative: Representative for the 2024 batch of *IIT Bhilai*, responsible for managing academic activities.
Student Mentor: Mentored incoming students of the 2025 batch of *IIT Bhilai*, under the *Student Mentorship Program*.

INTERESTS

Rust, Network/System Programming, System Design, Low Latency Development & exploring cloud-native projects