Siddhant Anand Ugarkar

siddhant.ugarkar@gmail.com | +91 9900171336
https://github.com/jackeddaniel | www.linkedin.com/in/siddhant-ugarkar-93614b24b | https://leetcode.com/u/buffbazooka/

EDUCATION

PES University, Bangalore - Bachelor of Technology in Computer Science Engineering | *Expected May 2026*

Relevant Courses: Operating systems, Computer Networks, Database Management Systems, Data structures and Algorithms and Cloud Computing

EXPERIENCE

Vegam Solutions | Software Engineering Intern

- Developed **custom Ruby on Rails** plugins for the project management tool **Redmine**, eliminating the need for two third-party Redmine plugins.
- Streamlined ticket and sub-ticket creation and maintenance workflows by integrating scheduled **CRON-based automation**, reducing manual overhead.
- Built a **ticket analytics dashboard** using Chart.js for project managers to track KPIs and trends.
- Automated **large-scale PostgreSQL migrations** allowing two cross-functional teams using different project management tools to seamlessly integrate into the existing company Redmine ecosystem.

Tech stack: Ruby on **Rails**, **PostgreSQL**, **SSH**, **Git**.

PROJECTS

Multi-node Distributed Key-Value Storage System | ***Go, gRPC***

- Designed and engineered an **etcd**-like distributed key-value database using Go.
- Handled inter node communication including heartbeats for node registration, node health, database consistency using gRPC.
- Implemented persistence with **BadgerDB** and full replication across nodes for fault tolerance.

Kubernetes Simulator | ***Python***

- Built a **Kubernetes-like container orchestration tool** using Python.
- Simulated pod lifecycle and monitored container health via scheduled heartbeats.
- Developed both a **CLI** and a **FastAPI-based GUI** for orchestration.

Distributed File System Simulator | ***Python, FastAPI***

- Designed a Distributed File System simulator using FastAPI and **Pydantic** inspired by the **Hadoop Distributed File System**.
- Implemented the **MasterNode**-**DataNode** design pattern to handle clean data organization.
- Implemented **sharding** to handle large files, **replication**, and failure detection using **heartbeats** to ensure availability.

Guitar Effect Classification (Research Project) | ***PyTorch, Librosa***

- Synthesized a novel guitar effects dataset from **IDMT-SMT** raw guitar audio dataset.
- Built multiple **CNN** and **RNN** based neural networks to classify single and cascaded guitar effects.
- Achieved 90 percent accuracy across the dataset.

SKILLS

Programming: **C++**, **Python**, **JavaScript**, **Golang**, **Java**, **Ruby**
Frameworks: **Node.js**, **FastAPI, Ruby on Rails, PyTorch**
Databases: **MySQL**, **PostgreSQL**, **MongoDB**
Tools: **Linux**, **Git**, **Docker, SSH**
Foundations: Data Structures & Algorithms (200+ LeetCode problems solved)