

Kumar Shivendu

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Skillset

Languages Python · JavaScript · Java · Go · Dart · C++ · Bash
Frameworks Django · Node.js · React · FastAPI · Flutter · Material UI · Bootstrap · Tailwind
Miscellaneous Docker · PostgreSQL · Redis · Elasticsearch · AWS · Figma · Pytest · Cypress

Experience

Software Engineer @ SuperTokens (YC 20)

Mar. 2022 - Present

- SuperTokens is a highly customizable authentication tool that is growing fast with **9k+ stars on GitHub** and **thousands of B2B SaaS users**.
- **Architected multi-factor authentication (MFA) framework** and Time-based OTP recipe
- Implemented overridable features for email verification, dashboard, user roles (RBAC), user metadata, and multitenancy.
- Introduced email/sms delivery, SDK logging, new integration tests, and deployed hotfixes for bugs reported by our users.

Backend Engineer Intern @ FamPay (YC 19)

Sep. 2021 - Mar. 2022

- FamPay is India's first numberless card and payments app for teenagers with **10M+ users** on the platform.
- Refactored code and unit + integration tests related to UPI payments, KYCs, and asynchronous celery batch jobs.
- Researched the bottlenecks in our AWS Redshift setup and the ways to optimize it for better resource utilization on **tables with 1B+ rows**.
- **Saved 50k\$+ annually on Anomaly Detection using an open-sourced tool:** Chaos Genius (YC 20) instead of Anodot or AWS Cloudwatch.

Google Summer of Code Student @ Software Heritage

May. 2021 - Aug. 2021

- Software Heritage (SWH) is an ambitious project by Inria (Paris) to collect and preserve all of the open-source software that has ever existed.
- Developed **advanced metadata search features on top of 200M+ public software repositories containing 15 Billion+ source code files**
- Ingested metadata of 200M+ software repositories from Kafka and RPC APIs of multiple services into Elasticsearch cluster.
- **Designed a custom search query language** and wrote a translator that **converts the Abstract Syntax Tree (AST) into Elasticsearch queries**.
- Implemented autocompletion for the custom query language in the web interface using WebAssembly, Javascript, CSS, and Django.
- Wrote unit and integration tests using Pytest and Cypress for multiple services while maintaining 100% test coverage.

SDE Intern @ Logy.AI

Feb. 2020 - Jul. 2020

- Developed the **appointment booking portal for Colgate MyToothDoc service** using Django. (100k+ users)
- Revamped the internal Image data annotation platform using Django and multiple Javascript libraries.
- Doubled the speed of the malaria detection APIs by implementing an OpenCV-based blurry microscopic image detector.
- Developed a bridge service using web sockets to interlink Whatsapp chatbots with our customer support dashboard.

Data Scientist Intern @ IIT Mandi

May. 2019 - Jul. 2019

- Trained ML models using Keras and Tensorflow to forecast network usage time-series data.
- Developed the foundation for our **research paper that got accepted by IEEE**.

Side Projects

Activity-Tracker

- An ecosystem of applications that continuously track and track time spent on browsers, IDEs, desktop, and mobile apps
- Tech Stack: NodeJS, Electron, Flutter, MongoDB, React, Material UI

DukanHelp

- Mobile (Flutter) and web based invoicing and inventory management app for small businesses.
- Tech Stack: Flutter, Flask, JS, Bulma, GSheets API, SQLite

Open source contributions @ Software Heritage

- Created linters to crawl and ingest code from Fedora packages (.rpm files), Gogs (code hosting platform), and Hex.pm (Erlang package manager).
- Mentored an intern during Google Summer Of Code 2022
- Received **Open Source Peer Bonus award from Google for my contributions**

Technical blogs

- In-depth look at ACID properties of Postgres [Link](#)
- Exploring Data Structures in Redis [Link](#)
- Python testing best practices [Link](#)

Other projects and contributions

- doctree: A parser-based documentation generator for any language with symbol search. Written in Go (800+ stars)
- vscode-advanced-search: VSCode Extension for bulk search/refactor that's more powerful than regex. **Winner in FOSS United Hackathon**
- search-copilot: Chrome extension that scrapes search results on any website for semantic search using GPT embeddings
- agentai: Simple python library around OpenAI API that seamlessly integrates python functions with OpenAI functions

Education

Indian Institute Of Technology (IIT) Bhilai

Bhilai, India

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

Jul. 2018 - May. 2022

CGPA : 8.2/10.0