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

Backend 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 SaaS users**.
- **Architected our most demanded enterprise features - multi-factor authentication (MFA) and Time-based OTP**
- Implemented overridable features for email verification, dashboard, user roles (RBAC), account linking, and multitenancy in our SDKs.
- Introduced email/sms delivery, SDK logging, new integration tests, and deployed hotfixes for bugs reported by our users.

Software 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 240M+ public software repositories containing 15 Billion+ source code files**
- Created workers to ingest metadata from 240M+ 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 in realtime**.

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 listers 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 (850+ 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