Software developer

SHREYAS KAPALE

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HELLO WORLD

I really like building things for people. I write good code! based on SOLID principles. I am passionate, people friendly, creative and hardworking.

EDUCATION

KLS Gogte Institute Of Technology, Belgaum - Bachelor of Computer Science and Engineering 2018-2022, CGPA - 8.8/10

Courses - OOPS in Java and Python, DSA in C,DBMS and Compiler Design.

Electives - Advanced Algorithms, Information Security & Networking, Cloud Computing, software Testing.

WORK EXPERIENCE

Informant Networks | Software Developer (Internship) | August 2017 - October 2017

- Router development, working on OpenWRT Linux.
- Multi-threaded ICMP link monitor with uptime statistics (service for cloud router) which helps in knowing if a link/ iface is down.
- Writing make files for Openwrt packages to run on different embedded boards.
- Firmware update system with SHA based integrity checks, helped in simple secure update.
- Development of real-time graphs and dashboard development.
- Written memory efficient robust code for router control using PHP, OpenWRT UCI & LUA helped in **decreasing compute and memory usage** of embedded router **by more than 50%**.

Infigon Futures | Full Stack Developer (Internship) | October 2020 - January 2021

- Built microservice with FastAPI and containerized on EC2 with docker and load balanced using AWS ELB built a CD/CI pipeline integrated with AWS ECR.
- Built MongoDB data models for different APIS.
- Built Flutter screens and integrated APIS.
- Released new updates to the app, helped it gain new installs and get good reviews.

Rising Youth Foundation| Full Stack Developer (Contract) | Feb 2021 - April 2021

- Flutter NodeJS Socket based Group chatting app
- Complete React dashboard for user management

Finclus | Full Stack Developer (Internship) | June 2021 - December 2021

- Built serverless AWS lambda functions - OCR for Aadhaar and Pan card with Dynamo DB and S3 information store pipeline.
- Implemented barcode screen for Node JS based package - a authentication SDK for Finclus App.
- Decoupled existing API's into lambda functions, helped increasing productivity of different teams and modularising the APIS.

Synth YC 21 | Back-end Engineer (Contract) | October 2021 - Feb 2022

- Nvidia Riva deployment on g4dn.xLarge EC2
- User authentication using Oauth PKCE for Electron using AWS Amplify (cognito) with login providers like Google sign in and Apple sign in
- Microservices for batch transcription service with ticket queueing system
- Load testing Nvidia RIVA GRPC server for Speech to text (ASR)
- Tested ASR models like Citrinet and Quartznet chose Citrinet with WER (word Error rate) of 6 %
- Service usage calculator

Some freelance projects
Flutter Freelancing for - PractWorks, Rising Youth Foundation and Saahit Enterprises.
Web Development for - Prerana PU, LaundroKart, KLS GOGTE

SKILLSET

- Micro-services, Restful API's with Authentication & Cloud DevOPS
- **Programming languages -** Python,Javascript,C++,C,Go,Java.
- **Frameworks/OS/Tools -** NodeJS, Go-Gorilla/MUX/schema/handlers, Flask, FastAPI, Express, Django, Redis, Nginx, AWS (Lambda,DynamoDB,S3,EC2,IAM,BOTO,ECR,Route53,ELB,Amplify), Flutter,Cordova, Firebase, MongoDB, Influx DB, MySQL, React, NextJS, OpenWRT,Jenkins, OpenTelemetry,CD/CI OpenCV,Dask, Scikit-Learn, Docker, Basics Of Kubernetes, OpenWRT, Wireshark, TCPdump, Etherape, JQuery, Tailwind, Bootstrap,Bash, Linux,Github-actions,Trello,Jira, Git & etc...

TECHNICAL PROJECTS

Bharat Sentinel - Firewall & Antivirus built using Flutter,JAVA android native, Firebase & Python. Unique feature - It generates a local vpn server to make a loopback to isp so that the app can disallow apps based on rules.

Rekori - DevOPS tool for capturing Events and process metrics. Built using FastAPI and InfluxDB

Shortest Path Visualiser - Pure Vanilla Javascript, CSS and HTML5 based BFS implementation for shortest path visualisation.

Bottles - A wholesaler inventory app built using Flutter & Firebase.

Natural Language to Flutter App - OpenAI GPT3 Based natural language to flutter UI generator built in Python.

JIO-FiberAPI - A unofficial python package for JIO Fiber Router, to control it via python.

MYQID - Complete QR based visiting card generator with Location sharing Flutter App.

GITSY - A Complete student profile, placement and skills manager with notification system built for my college with student and placement cell roles. Stack - MongoDB, React, Express, Nodejs, JWT auth.

NOTABLE ACHIEVEMENTS

- **Gold winner at National level** - INSEF fair hosted by Science Society of India, winner among 100+ teams building a robotics project with computer vision and decision making capabilities . (INSEF - Indian Science & Engineering Fair)
- Recognized By **Science Society Of India** and **Rotary Club** for Innovations.
- Was invited to **BARC - Bhabha Atomic Research Centre as a mentee for a robotics project.**
- **2 Times Gold Winner** at state level INSEF fair (for novel mechanical based mobile charging shoes,patent pending, and RPI based discovery robot)
- Received **Social Innovation Award** from Science Hack Day India (for Computer vision based anti bunking system).
- Winner of various inter-college hackathons and paper presentations.

LEADERSHIP ROLES

- **Coordinator at (BelPY, PyData and PyGIT) Belgaum.**
- **Mentor at PyCon India 21 & Science Hack Day 17,19**

TALKS

- **PyFlames 21 -** Converting normal routers into cloud routers.
- **PyCON India 21 -** Introduction to distributed computation using dask.
- **Avalanche 2020 -** Heart disease detection using KNN
- **Avalanche 2019 -** RCNN, region based convolutional neural networks.
- **Science Hack Day 2017 -** How to start programming as a teen.