Software developer

# SHREYAS KAPALE

#### **HELLO WORLD**

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github.com/yshreyas ( work )

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**EDUCATION** 

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

College - KLS Gogte Institute Of Technology 2018-22, Belgaum - Bachelor of Computer Science and

Engineering Courses - 00PS 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 (Contract) October 2020 - January 2021

- Built microservice's with FastAPI and containerized on EC2 with docker and load balanced using AWS ELB built a CD/CI pipeline integrated with AWS ECR.
- Built and deployed machine learning API's for personality testing (used for career guidance).
- Wrote automated python web scraping scripts
- Built screens and integrated APIS for Flutter mobile and web.

#### Synth YC 21 | Product Engineer | October 2021 - Feb 2022

- Wrttien ticket queue based micro-services for async transcription and async diarization, with optimized transcript stitching function.
- Nvidia Riva SDK deployment on g4dn.xLarge, and written load testing automation scripts for Nvidia RIVA GRPC server for Speech to text (ASR)
- User authentication using Oauth PKCE for Electron using AWS Amplify (cognito) with login providers like Google sign in and Apple sign in.
- Writing S3 Policies, Configuring Route53, Google calendar & task's API Integration, Azure batch transcription Integration.
- Worked on front-end API integration.

#### Yellow | Software Developer (Full time) | March 2022 - Present

- Complete FullStack Building product on Flutter (IOS and Android), NestJS, GraphQL, React and GCP. Other tools - Mixpanel, Sanity, Mailchimp, CodeMagic etc...
- Notable features built by me end to end
  - Backend Coupon system, user specific notification system, ticket-based pdf generation pipeline, Yellow Plus backend with cart system integrated with Razorpay
  - Frontend built BLOC based frontend for flutter.
- Notable improvements in the code/ DevOps
  - Reduced 800ms Graphql calls to 200-250ms using nestjs context as cache and Redis.
  - Reduced document generation time by 90 % by rewriting existing code.
  - Managed publishing and build system for Appstore and PlayStore.

### **SKILLSET**

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

## 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 • 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.

# **TALKS**

- Mentor at PyCon India 21 & Science Hack Day 17,19
- 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.