Naveen Kumar M

Software Engineer

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Skills

Summary

Software Engineer with experience in Python developing, Backend and Web Scraping with basic DevOps and QA skills. With Reverse Engineering, He excels in using scrapy and selenium to build robust spiders. His proficiency in python allows him to efficiently analyze and transform large datasets. In Backend, he has worked in boilerplate template, thus he can work with any kind of backend framework with ease. He has experience in flask, fast Api and Django framework by developing APIs and improvised codebase. He is experienced in using python modules like pandas for transforming data as per need of any format. His knowledge of Docker enables efficient handling of different projects without conflicts and shares the same with others. He is a skilled crawl engineer with a good understanding of backend web development and knowledge of basic Dev-ops tools and with ability to automate any part using scripting. In QA & testing, he has a good amount of experience with both manual and automated api testing. He had even developed a pytest based automated REST tester and open sourced it.

Technical Skills:

•**General:** GitHub, VS code, Linux, Windows, JIRA, slack, Automation

•**Data Engineering Tools:** Composer (Airflow), GCS, Pandas.

•**ML Stack:** NLP, LLMs, Agentic AI

•**Programming Languages:** C, C++, OOPS, Python, Shell Scripting, SQL.

•**Backend Frameworks:** Fast Api, Flask, Django.

•**Backend Tools:** ELK stack, Nginx, Gunicorn.

•**Dev Ops Tools:** Docker, Kubernetes basics, Github Actions.

•**Web scraping:** Scrapy, Selenium, HTML, Regex, Rerverse Engineering

•**Databases:** Postgres.

•**Cloud Skills:** GCP, SSH, RDP

•**Soft Skills:** Problem-Solving, Teamwork, Communication, Client interaction

•**QA & testing:** Pytest, Postman, manual UI testing, automated api regression testing, Figma check, ZAP penetration testing

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Experience
3 Years (9/22 to present)

BigThinkCode / Software Intern
03/22 – 09/22,
India
Chennai, Tamil Nadu.

BigThinkCode / Associate Software Engineer
09/22 – 10/23,
India
Chennai, Tamil Nadu.

BigThinkCode / Software Engineer
10/23 – Present,
India
Chennai, Tamil Nadu.

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Education

Sri Venkateswara College of Engineering B.E EEE
09/18 – 09/22.
Post Bag No.1
Pennalur Village
Chennai - Bengaluru Highways
Sriperumbudur (off Chennai) Tk. - 602 117
Tamil Nadu, India

Grade: 8.53

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Projects

Mercari

Description: Contributed to crawling data for the Data Engineering works for a Leading eCommerce Company. The project aims to develop a robust eCommerce data platform for business intelligence. It uses an ETL framework to gather data from web crawlers, processes it using PySpark, and stores it back into GCS. ArangoDB manages product-related information. The project includes various pipelines for different business needs, employing Kubernetes and a range of data engineering tools like DBT, Cloud Functions, Pub-Sub, and Cloud Run for diverse tasks.

Role: As a Crawl engineer, I have extensive experience in writing spider using scrapy and selenium for a wide range of e-commerce and product sites without compromising quality of data.

Technical Stack: Python, scrapy, selenium, Flask, Pyspark, Scrapy, GCP, JIRA.

Clevervue

Description: Contributed to NLP based user querying feature for a Data Analysis and visualization tool. The project aim is to seamlessly analyze data from various sources primarily google sheets and store the analyzed result. One of the highlights of this project is the user data is not stored anywhere separately, only their credentials are stored, thus ensuring data safety.

Role: As a Backend Developer, the focus was on contributing to the backend architecture, and logic of the data analysis and visualization tool, aiming to ensure efficient data analysis and visualization without compromising user data privacy.

Technical Stack: Python, Pandas. LLMs, GPT, Fast Api.

Python Microservice Template

Description: The contribution involved creating a versatile Python-based microservice boilerplate. This template serves as a foundational framework for initiating various types of Python backends across different services. It provides a standardized starting point for developing Python-based microservices, streamlining the initial setup and ensuring consistency in the structure and functionality across diverse service architectures.

Role: As a Backend developer, I have formatted the whole structure of this template with user-friendly documentation for ease of use. Did this as a generic implementation to ensure that one can use this for any sort of backend web service.

Technical Stack: Fastapi, Rest API, Templating, Docker, ELK stack, Make.

Python REST tester

Description: Contributed to most part of this pytest based REST api testing framework by using modular coding techniques and easily configurable approach. It is customizable as per the need of the REST app tested. It has been used for Throughput project after customization. With a built-in report facility and less difficulty to add new features, this framework helps reduce testing time and difficulties.

Role: As a Backend developer, I have formatted the whole structure of this framework with user-friendly documentation for ease of use. Did this as a generic implementation to ensure that one can use this for any sort of backend web service with option to customize easily.

Technical Stack: Pytest, Rest API, QA & Testing, Docker, Make.

Foundation LLM

Description: Contributed to crawling data for the Data Engineering works from a hard to crawl website with IP blocking and cookie refresh. By Reverse Engineering, I figured out ways to mimic human-like behavior and crawled and handled data comprising of large sizes in GBs using GCP bucket and efficient python automated scripts, with concurrent crawling. Whenever faced with block from crawling, figured out the root cause and tried different strategies to ensure undetected crawling. With automation scripts, I got experience in python developing as well.

Role: As a Crawl engineer, I have extensive experience in writing spider using scrapy and selenium along with automated GCP upload, data cleanup scripts and using proxies and VM with crawling with automated files and images crawl without compromising quality of data.

Technical Stack: Python, selenium, Flask, Scrapy, GCP, Proxies, Automation.

Throughput

Description: Contributed QA and testing of this supply chain with AI and ML based web application. Due to its complex UI, I gained great learning in identifying bugs at every possible level. Also, contributed to migrating the JAVA based Rest assured testing framework to the Python based automated REST tester by doing customization over the generic version and also performed automated testing on both older and newer framework for various releases. Had exposure to ZAP penetration testing tool in both manual and automation workflows.

Role: As a QA, I have learned various methods and techniques of manual UI testing and Figma based testing. In Back End testing, I did manual as well as automated API testing using open source 'python_rest_tester'. As it is a complex supply chain web application, every test demanded rigorous effort and a long timeline QA & manual test. By this, ensured bug free releases for both Front End and Back End. I also managed tickets, sprint and releases using JIRA. I also did changes to backend code to ensure proper openapi swagger API documentation. With ZAP penetration testing tool, testing the entire web app, also proposed plans to integrate into CI/CD like Github Actions.

Technical Stack: Openapi/Swagger, Postman, Figma, JIRA, ZAP

Awards

BigThinkCode / Above and Beyond Q1 2025

Certifications

KodeKloud / Kubernetes for the Absolute Beginners - Hands-on Tutorial

LinkedIn

LinkedIn: https://www.linkedin.com/in/naveen-kumar-m-8491ab204/

GitHub

Github profile: https://github.com/naveenkumar86420