Kush Kothari

kushkothari2001@gmail.com linkedin.com/in/kush-kothari-ba013218b/ github.com/kkothari2001

+91 9833230036

Education

Veermata Jijabai Technological Institute **2019 – 2023**

Bachelor of Technology in Computer Engineering (CGPA: 8.65) *India*

Experience

Deutsche Bank (DWS Asset Management) **10 July 2023 – Present**

Senior Analyst *Pune, India*

- Tech Stack: Typescript/Javascript, React, Java, Spring, GCP, Docker
- **Boosted trader efficiency by 10x** by developing a real-time WebSocket dashboard that aggregated multi-source equity lending data, featuring **fuzzy search, dynamic filtering, and high-frequency updates**
- Built and optimized both frontend and backend components for a data-intensive asset management platform, improving scalability with **database query optimizations, frontend caching (25% load time reduction), and Higher-Order Components (HOCs)** for UI modularity and reusability.
- **Saved the company $20,000 in licensing fees annually** by creating a REST API-based trade booking workflow and automating BVI-file trade processing, which **replaced a costly robot automation framework.**
- Collaborated with designers and stakeholders in an Agile environment using JIRA and Figma, iterating rapidly based on trader feedback. Actively contributed to code reviews and mentoring, and conducted **internal trainings on React Internals, Frontend Best Practices, and Docker.**

Google Summer of Code 2022, CERN-HSF **July 2022 – Sep 2022**

Open Source Contributor

- Tech Stack: Python, Dask
- Contributed to Uproot, a Python library for streaming high-energy physics data from ROOT files.
- Built uproot.dask, integrating Uproot's data streaming with Dask's parallel computing, enabling researchers to **process large-scale datasets efficiently** across **distributed clusters and low-memory environments like laptops**.
- **Optimized Dask computation graphs**, reducing **workflow execution times by 40%** and **memory overhead from multiple GBs to just 250-500MB** on standard laptops.
- Implemented **multi-backend support**, integrating **NumPy, Awkward Array, and DataFrame pipelines**, allowing high-energy physics researchers to work with ROOT file data in their preferred formats effortlessly.
- **Benchmarked 5+ execution modes** across single-core, multi-threaded, and distributed clusters, ensuring scalability for high-energy physics workflows.

Google Summer of Code 2021, NumFOCUS **May 2021 – Sept 2021**

Open Source Contributor

- Tech Stack: Python, Django, PostgreSQL, Linux, Docker
- Built a **spatial data download and installation pipeline** for Data Retriever, **enabling seamless integration of 50+ vector and raster datasets** into **PostgreSQL with PostGIS**.
- Automated health checks, **reducing database installation failures by 30%** and allowing users to debug errors.
- **Cut manual setup time by 50%** by designing an automated testing pipeline for **Linux servers using cron jobs**.
- Contributed **18 new spatial dataset testing scripts**, along with a **modular framework** to support **scalable dataset additions**.

Technical Skills

Frontend Tech: React.js, Typescript / Javascript
Backend Tech: Java (Spring Boot), Python, SQL
Cloud Tech: Google Cloud Platform
Dev and DevOps Tech: Git, Docker, Linux, Bash, Jenkins

Projects

twAIn | *Python, NLP, Flask, Web Design, SCSS* **July 2020**

- Built an AI-powered interactive storytelling platform, serving as a dynamic Dungeons & Dragons (DnD) campaign generator, creating narratives based on user-defined prompts, genre, and length.
- Developed and integrated a React-based frontend with a Python Flask backend to handle AI model inference.
- Designed an intuitive UI with interactive story progression, enabling customizable character arcs and genre-based storytelling.

Certifications

Google Cloud Professional Data Engineer Certification **Jan 2024**