

SUSHIL PRASAD SHAW

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Skills

Django Rest Framework | Python | Node JS | MySQL | React JS | JavaScript | GitHub | AWS | Generative AI | Langchain | OpenAI | Linux | New Relic. | Nginx | Docker | Basic CI/CD | Celery | Redis | Gunicorn

Overview

I am a dedicated Software Engineer with **3.6 years** of comprehensive experience in developing, optimizing, and managing scalable web applications. Currently, I serve as a Software Engineer II at Shorthills AI, where I specialize in backend development, data synchronization, and system optimization. My technical proficiency spans a wide array of technologies, including **Django REST Framework, Python, Node.js, MySQL, React JS, Docker, CI/CD, JavaScript, GitHub, AWS, Generative AI, LangChain, OpenAI, Celery and redis, Linux, New Relic, and Nginx**. This diverse skill set enables me to deliver robust and high-performance solutions tailored to complex business needs. Additionally, I optimized a data processing pipeline, reducing processing time from **1500 minutes to 682 seconds for 10k categories**, and built scalable systems as per requirements.

Work Experience (3.6yrs)

Shorthills AI | Software Engineer II

April'22 - Current

- ❖ **Planning and Execution of Data Synchronization Pipeline:** Oversee the planning and execution of a robust data synchronization pipeline for the data science team, ensuring efficient data flow and consistency across systems. I have used **Django Rest Framework, python, pandas, NumPy, and MySQL**.
- ❖ **Backend Management:** Manage the backend architecture and infrastructure, ensuring it supports scalability and performance. Able to deploy the Django Application on **ec2 using Nginx and Gunicorn, Monitoring with New Relic**, etc.
- ❖ **Database Schema Design:** Design the database schema to minimize load by adhering to normalization rules, and optimizing for efficient data retrieval and storage. (**Low-Level Architecture**). Make an efficient database system to improve **2x times better** database queries.
- ❖ **Feature Planning and Work Distribution:** Plan client-requested features and distribute tasks effectively among team members to ensure balanced workloads. (I am using the Creately website(<https://app.creately.com/>) for planning).
- ❖ **Code Optimization:** Write efficient and optimized code for end-point users, focusing on **performance and scalability**. I have used the **new Relic** to track and fix those issues, as well as **SQL log monitor tools like Django Silk**.
- ❖ **Data Processing Script Optimization:** Optimize data processing scripts to efficiently handle bulk data, reducing processing time from **1500 minutes to 682 seconds for 10k categories**. Improve data pipeline processes for scalability and efficiency. And I have used celery with redis for task processing in background.
- ❖ **Implementation of Complex Real-Time Problems: Solve complex real-time problems**, such as dynamically showing the nearest dealers with the required information, and developing algorithms to efficiently compute all the closest dealers, even with up to **200,000 dealers**.
- ❖ **Handling Large Numbers of Users:** Implement caching methods to efficiently handle the many users, utilizing call caching instead of direct database calls to improve response time and system performance. I properly use **Redis** cache and **Django** also provides the built-in cache system these help us to improve our application performance many times.

Madgical Techdom | Software Engineer I

April'21 - April'22

- ❖ **Full-Stack Engineering on Affiliate Projects:** Worked as a full-stack engineer on affiliate-type projects, ensuring seamless end-to-end development and integration.
- ❖ **Efficient and Scalable Code:** Write efficient and **scalable production-ready code** that maintains a maintainable, high-performance codebase.
- ❖ **API Test Cases:** Write comprehensive **API test cases** before developing any APIs, ensuring reliability and performance through thorough testing.
- ❖ **Database Structure and Modularity:** Design a forecast database structure that is **efficient and scalable, and develop a modular system architecture** for easier maintenance and expansion.
- ❖ **Object-Oriented Code:** Write object-oriented code to enhance reusability and maintain precise order, following best practices to ensure a clean and organized codebase.
- ❖ **Developed as per SEO:** Developed data-driven **SEO initiatives, increasing website traffic by 25%** and enhancing online visibility

Milestone Pvt Ltd | Internship

7 months

- ❖ **Internship Completion:** I completed my internship, gaining hands-on experience and practical knowledge in web development.
- ❖ **App Development:** Created multiple applications using React JS and Node JS, demonstrating proficiency in full-stack development. Developed many applications independently, showcasing my ability to manage projects from start to finish.
- ❖ **Training and Skill Development:** Received comprehensive training in Bootstrap, React JS, Node JS, HTML, and CSS, and effectively applied these technologies in various projects to build responsive and dynamic web applications.

Projects

Generative Search and Document Summarization Project: Client Based

- **Overview:** Developed a system for generative search on personal and private data, enabling users to quickly retrieve and summarize relevant documents based on specific queries. The system also offers a Q&A feature, allowing users to ask questions about the documents and receive precise answers.
- **Technologies Used:** Celery Task Management, Django REST Framework, Python, Generative AI, Pandas, OpenAI, LangChain, Airflow, Gen AI, New Relic, Nginx, Unicorn, GitHub.
- **Key Contributions:**
 - Implemented a robust document processing pipeline using Celery, enabling efficient document summarization.
 - Developed a feature that allows users to perform queries on private documents, with the system summarizing and presenting the most relevant content.
 - Enhanced user experience by integrating a Q&A functionality, providing users with detailed answers based on the content of the documents.

JumplQ (Car Dealership Management): Client Based

- **Overview:** Developed a comprehensive car dealership management platform, providing dealers with tools for detailed valuations, competition analysis, and business improvement strategies.
- **Technologies Used:** Django REST Framework, MySQL, Pandas, OpenAI, LangChain, Airflow, Gen AI, New Relic, Nginx, Unicorn, GitHub, Python, Generative AI.
- **Key Contributions:**
 - **Valuation Creation:** Built robust tools using Django REST Framework and MySQL to allow dealers to create detailed valuations of their dealerships. Integrated Pandas for advanced data processing and analytics to ensure accuracy.
 - **Competition Analysis:** Implemented a system utilizing OpenAI and LangChain to analyze competition from nearby dealers, comparing performance across various brands, and providing a comprehensive market overview.
 - **Comprehensive Dealership Reports:** Developed a reporting feature combining Django REST Framework and Pandas to generate insightful dealership reports. Enhanced reports with Gen AI for intelligent business improvement recommendations.
 - **Business Improvement:** Provided dealers with tailored recommendations using insights from OpenAI and Gen AI. Ensured system performance and scalability with New Relic monitoring, and handled high traffic with Nginx and Unicorn. Managed version control and deployment through GitHub.

Best View Reviews (Affiliate Type Website): Product Based

- **Overview:** Developed a comprehensive affiliate website that allows users to compare product prices, reviews, and seller options across multiple platforms, enhancing the user's shopping experience.
- **Technologies Used:** Django REST Framework, Python, React JS, Node.js, MySQL, Java Spring Boot, JavaScript, Generative AI, LangChain, OpenAI, AWS, Linux, Apache2, Nginx, New Relic, GitHub.
- **Key Contributions:**

- **Product Price Viewing Options:** Designed and implemented flexible product price viewing features using Django REST Framework, Python, and React JS, backed by a robust MySQL backend. This ensured users could easily access and compare prices across various platforms.
- **Product Comparison Across Multiple Sellers:** Developed a system using Django REST Framework and Node.js that allows users to compare products from multiple sellers. Integrated Generative AI and LangChain to provide users with comprehensive comparisons, aiding in informed purchasing decisions.
- **Price Comparison Across Multiple Sites:** Leveraged Java Spring Boot, Python, and OpenAI to enable price comparison across multiple sites. Ensured reliability and speed by utilizing AWS for processing and a MySQL backend for data storage.
- **Overall Reviews in Score Format:** Created a user-friendly interface using JavaScript and React JS to display overall product reviews in a clear score format. Managed seamless data handling with a backend powered by Django REST Framework, Apache2, and Nginx on Linux, while monitoring system performance with New Relic. Used GitHub for version control and deployment.

Education

Institution	Degree	Years	CGPA
Mangalyatan University	Master of Computer Science (MCA)	2023 - Present	7.8
Lingaya’s University	Bachelor of Computer Application (BCA)	2017 - 2020	9.6