Rahul Pareek

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TECHNICAL SKILL

Programming Languages	: Python, Javascript, Java
Web Technologies / Frameworks	: Node.js, Express.js, HTML, CSS, Mocha
Databases	: MongoDB, PostgreSQL
Tools & Libraries	: Docker, Kafka, Kubernetes, Junit, GCP, VertexAI, GCP Dialogflow

EXPERIENCE

Sr. Software Engineer   May 2025 – Current
Google *(Contract)*   *Hybrid*

- Designed and implemented **Conversational AI and NLP** capabilities for inquiry platform chatbot including Gen AI fallback mechanisms. Leveraged **data stores to use user-manuals for RAG based system**, improving response quality for unmatched intents and reducing fallback failure rates.
- Developing versatile API enabling **CRUD operations** on Excel sheets for sales target data retrieval from in-house APIs enabling fast delivery and data updating.
- **Resolved critical webhook data point issues** that prevented data processing ensuring seamless communication between the chatbot and backend systems.
- Optimized pricing recompilation component performance by **setting rule based pricing and using TTL**.

Software Engineer   Feb 2022 – Feb 2025
EdgeVerve   *Hybrid*

- Developed Scalable RESTful API for Finacle, a global financial platform utilized by over **150 banks in more than 100 countries**, that is serving user base of over **1.7 billion account holders.**
- **Migrated the database from MySQL to PostgreSQL**. **Conducted load testing on APIs** to ensure efficient job processing under high load after integrating Kafka queuing.
- Enhanced internal data hydration tool by adding support for JSON and CSV data types to improve usability in current code**.**
- Optimized JSON file parsing in the Finacle core component by adopting a more efficient approach utilizing parallel processing of data along with Json Parser to parse the file. This enhancement led to a **34% reduction in the overall runtime of the component during daily performance runs**.
- Debugged and fixed issues with Kubernetes (GKE) that lead to Pods not getting data under load added additional quality checks in Jenkins pipeline and **improved the test coverage from 45% to 80%** for Finacle core component.
- Implemented c**entralized JSON file access for core components** thereby reducing method calls along with removing redundant code. These efforts led to **20% improvement in the performance runs**.
- Spearheaded WhatsApp Banking Chatbot Project using Django Organized and re-grouped existing flow on basis of categories for ease of access **fixed performance bottlenecks while** parsing pdf under high load, **added rate limiting** to prevent API abuse in.
- Integrated DialogFlow with WhatsApp banking chatbot for LLM Integration with different flow for acc options and support along with TTS support using smallest.ai.

Intern   May 2020 – Jul 2020
LinuxWorld Infotech   *Remote*

- Extensively worked with Python, Pandas, and NumPy for data cleaning, feature generation, and implementing various machine learning algorithms tailored to specific use cases.
- Designed and implemented an **IP blocker** application using K-means clustering algorithm to proactively prevent unauthorized scraping attempts on the website.

PROJECTS

AntiDiab   *Node.js, Express.js, MongoDB, Bootstrap*

- A web app to predict whether a user is prone to diabetes or not. Utilized the RapidAPI local business data API to fetch nearby doctor's locations and Integrated custom AskAI assistant for chat support.
- Revamped the backend using Node.js, Express.js and utilized MongoDB Atlas as the database. Used HTML, Bootstrap for the frontend.

Indian Sign Language (ISL) Translator   *Django, SQLite, Bootstrap, Blender*

- A web app for enabling text-to-Indian Sign Language conversion, supporting input via voice or text.
- Utilized Blender for dynamic hand signs animation, SQLite as database, and HTML, Bootstrap for the frontend.

AQI-Meter   *Node.js, Passport.js, Bootstrap, MongoDB, leafletJS*
- A web app to check the Air Quality Index (AQI) at a specific location featuring a user-friendly tile view.
- Revamped the backend using Express.js, Node.js, and Passport.js for authentication. Employed MongoDB Atlas as the database and Leaflet.js for the map view.

EDUCATION

Rajasthan Technical University
B.Tech in Computer Science