PRATHAM AGRAWAL

📞 +91-8269067007 ✉ prathamagrawal1205@gmail.com 💼 pratham-manish-agrawal ⭕ prathamagrawal
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Experience

Affinsys.ai **Bangalore, India**
Software Engineer *July 2024 - Present*

- **Analytics Service**:
    * Led the maintenance of an Analytics service that processes and delivers data for 20+ dashboards and 200+ charts, empowering real-time insights while optimizing user customization features. Optimized query performance and API response by implementing materialized SQL views, reducing query overload by 40%.
    * Developed an **Analytics Scheduler** to automate the delivery of 100+ analytics reports across multiple services, sending recurring emails to numerous recipients and ensuring timely dissemination of insights.
- **Archival Service**: Developed and implemented a robust archiving service to manage service-level data across 10+ services with varying foreign key relationships, ensuring referential integrity and seamless data consistency. The service includes a failover mechanism, safeguarding data during migration and maintaining reliability in case of system failures.
- **Eventlogger Service**: Developed an efficient service to process pub/sub events with async database writes, consolidating data from 10+ services into 40+ tables and simplifying schema management.
- Collaborated with the DevOps team to manage production-level data and service migrations for 5+ clients, ensuring data integrity and minimizing downtime.

Software Engineer Intern *Jan 2024 - June 2024*

- Orchestrated data migration for 200+ projects, ensuring seamless schema transitions while maintaining data integrity.
- Developed API solutions to enable video transmission across 10+ platforms, expanding reach and streamlining delivery.

CME Group **Bangalore, India**
SDE Intern *May 2023 - Nov 2023*
- Optimized and enhanced algorithms, improving performance by 30% and reducing computational overhead.
- Designed and implemented advanced tools for data extraction and processing, achieving a 40% reduction in latency and enhancing overall system efficiency.

Projects

LogHive 🔗 | *Python, RabbitMQ, Redis, PostgresDB, Docker* **Dec 2024**
- Developed a scalable log archival system with advanced compression and retrieval, handling petabyte-scale data with 99.99% reliability.
- Implemented adaptive consumer scaling & producer rate limiting, for elastic performance & preventing system overload.

Clusterbase 🔗 | *Python, Sklearn, Plotly, Javascript, CSS* **Feb 2023**
- Engineered and optimized Clusterbase, enabling dynamic parameter adjustment and clustering rules, reducing configuration time by 40% for datasets with up to 1 million records.
- Developed an advanced clustering algorithm to generate user-defined clusters, improving processing speed by 30% and visualizing insights for datasets with 500+ clusters

Technical Skills

Programming Languages & Frameworks: Python, C, C++, SQL, Git
Messaging and Streaming: RabbitMQ, Kafka, NATS
Cloud Computing Tools: Docker, AWS, Kubernetes, Github
Data science: Apache Airflow, Spark, Astro, Hadoop, Tableau
Database Management: SQL (e.g., PostgreSQL, Oracle), NoSQL (e.g. MongoDB), Database Design, Data Warehousing

Education

Vellore Institute of Technology, Vellore **Sep, 2020 – July 2024**
Bachelors in Computer Science with specialization in Data Science *CGPA - 9.25*

ACHIEVEMENTS

- **Chairperson at IET-VIT** - Coordinating with administration to host profitable technical events, achieving a 25% net profit while mentoring 200+ members in technical and management skills.
- Third Place at TRI-NIT Hackathon 2023 for project **Clusterbase** 🔗
- Experion Sponsor Track Winner at Devspace 2022 by CSI-VIT for project **Sportlight** 🔗
- Kaggle Notebook and Dataset contributor with 4 bronze medals. **kaggle** 🔗

Certification

Google Cloud Computing Foundations Program 🔗