Sreeraj Sudhakaran

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Experienced Python Developer with 5+ years of experience in software development, specializing in API development, data ingestion pipelines, and cloud-based solutions. Expertise in Python, Django, Flask, and machine learning frameworks, along with a strong background in SQL and NoSQL databases. Skilled in building and deploying serverless architectures on AWS and Azure, integrating third-party APIs, and optimizing data workflows. Proven ability to lead high-impact projects and collaborate with cross-functional teams to deliver efficient, scalable software solutions.

CORE TECHNOLOGIES

Programming Languages & Frameworks:	Python, Django, Flask, C, HTML
Cloud Platforms:	AWS (S3, Lambda, DynamoDB, Step Functions, EC2, SNS, SQS, Secrets Manager), Azure (Function App, Kubernetes, Storage Accounts, Key Vault)
Databases	MongoDB, PostgrSQL, DynamoDB
ETL & Queue:	Apache Kafka, RabbitMQ, Redis Streams, Pydantic
Monitoring & Logging:	Prometheus, Grafana, Sentry, Cloudwatch, Azure Logs
Software Tools:	VS Code, MongoDB Compass, Postman, Mailjet, Sendgrid, Datagrip
Version Control & Management:	GitHub, GitLab, Jira, ClickUp

EXPERIENCE

Software Engineer | **Viral Nation**, Toronto, Canada (Aug 2022- May 2024)

- Designed and developed robust data ingestion microservices for third-party APIs, integrating data from Facebook, Instagram, Twitter, YouTube, TikTok, Snapchat and Pinterest into PostgreSQL, MongoDB, and DynamoDB.
- Built scalable ETL pipelines to transform and store structured/unstructured data, improving data accessibility and processing efficiency.
- Developed serverless applications using AWS Lambda, Step Functions, and Azure Function Apps to handle high-volume API requests with minimal latency.
- Led the architecture and development of a time-series database solution for real-time data tracking, reducing query response times by 40%.
- Implemented retry mechanisms for failed data collection processes, increasing pipeline resilience and reducing downtime.
- Designed and optimized RESTful APIs using Django REST Framework, ensuring robust authentication, rate limiting, and data validation.
- Developed and maintained logging and monitoring infrastructure using Prometheus and Grafana, enabling proactive issue resolution and system performance tracking.
- Spearheaded the development of a queuing system utilizing RabbitMQ, Redis, and Kafka, efficiently managing and distributing API requests.
- Collaborated closely with Product, DevOps, and AI teams to integrate AI-powered analytics and insights into data processing pipelines.

Embedded Software Engineer | **Beginow**, Trivandrum, India (May 2017- May 2021)

- Designed and developed software solutions for embedded devices, emphasizing memory-efficient algorithms and optimized data handling.
- Executed rigorous testing and debugging of hardware components using oscilloscopes and logic analyzers.
- Collaborated closely with cross-functional teams throughout the product development lifecycle, authoring clean, well-documented code and providing valuable insights during design reviews and code walk-throughs.
- Liaised with clients to gather technical documents and keeping them aligned with industry standards, resulting in 97% client satisfaction rate.
- Proactively identified and implemented improvements to memory management, enhancing data integrity.

PROJECTS

1. **Queuing System for VNSecure Application**
   - Developed a distributed queuing system using Redis, RabbitMQ, and Kafka to efficiently handle API request loads and optimize response times.
   - Implemented cron jobs for request monitoring and automated handling of pending API calls, improving system efficiency.
2. **Social Media Data Collection APIs for CreatorOS**
   - Designed and built data ingestion pipelines to extract, transform, and store social media insights from Facebook, YouTube, Twitter, and Instagram.
   - Developed high-performance ETL processes to maintain data integrity and optimize database performance.
3. **COVID-19 Vaccination Forecasting**
   - Conducted qualitative research and developed a predictive model for COVID-19 vaccination drives, analysing trends and patterns across various provinces and demographics.
   - Utilized statistical methods to project future vaccination rates based on historical data, showcasing skills in data analysis and forecasting.

EDUCATION

- **Post Graduate Diploma** in Artificial Intelligence and Machine Learning (May 2021 – Dec 2022)
  Cestar College of Business and Technology, Toronto, Canada
- **Bachelor of Engineering** in Electronics and Communication Engineering (Sep 2012 – Jun 2016)
  Visvesvaraya Technological University, India