AKHIL CHIRRA

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SUMMARY

Software Engineer with 2+ years of experience in designing and building scalable, distributed microservices. Strong expertise in AWS cloud services, event-driven architecture, and API development. Skilled in Java, Python, C#, with experience in integrating third-party applications, ensuring performance optimization, and maintaining security best practices. Passionate about building high-performance backend systems and optimizing database efficiency.

PROFESSIONAL EXPERIENCE

University of Fairfax | *Graduate Teaching & Admissions Associate*   *June 2024 - Present*
- Supported multiple graduate-level subjects by assisting professors with grading, student queries, and course logistics across programs such as Cybersecurity, Cloud Computing, and Data Analytics
- Conducted student support sessions and clarified course expectations for newly enrolled students
- Played a key role in the Admissions Department, reviewing applications, guiding prospective students, and assisting with onboarding documentation
- Acted as a liaison between academic staff and the admissions team to streamline student enrollment and course placements
- Managed and updated student records in administrative systems, ensuring compliance with university policies
- Contributed to improving internal workflows through documentation, reporting, and system organization

Gold Arch Consulting LLC | *Software Developer*   *Mar 2023 - Dec 2023*
- Engineered scalable microservices using Java, Spring Boot, and RESTful APIs in an Agile environment to enhance system modularity.
- Built real-time distributed event-driven systems with Apache Kafka, reducing data processing latency by 35%.
- Deployed high-performance backend services on AWS (Lambda, S3, RDS, EC2, CloudFormation) with continuous deployment, reducing infrastructure costs by 25% and enabling fast user feedback.
- Defined and maintained API contracts using Open API and Swagger to ensure seamless integration with third-party applications.
- Integrated AWS SNS/SQS for asynchronous processing, augmenting system scalability and responsiveness.
- Constructed CI/CD pipelines with Jenkins, Docker, and Kubernetes, upholding sustainable development practices and minimizing downtime.
- Enhanced PostgreSQL performance by implementing query optimizations and indexing, achieving a 40% reduction in query times.

SAP LABS LLC | *Full Stack Developer*   *Jan 2021- July 2022*
- Developed multi-tenant SaaS applications supporting millions of transactions daily, enhancing system scalability and user experience
- Secured applications using OAuth 2.0 authentication, RBAC, and data encryption mechanisms.
- Optimized database performance using partitioning and indexing strategies, reducing query latency by 45%.
- Integrated GraphQL APIs alongside RESTful APIs, improving data retrieval efficiency.
- Deployed observability tools (Prometheus, ELK stack) for real-time system monitoring and debugging.

PROJECTS

Youtube Analysis through AWS   *Feb 2024 - Aug2024*
https://github.com/Akhiller4real/youtube-analysis
- Architected a secure and scalable data management system for YouTube videos, focusing on structured and semi-structured data analysis based on video categories and trending metrics
- Accomplished goals of data ingestion, ETL transformation, centralized data storage, and scalability, utilizing the Kaggle dataset for daily YouTube video statistics. Fabricated a QuickSight dashboard for insightful reporting

Reddit Data Extraction and Analysis Pipeline   *Aug 2022 - Dec 2022*
https://github.com/Akhiller4real/RedditDataPipeline-master
- Created a robust data pipeline using Apache Airflow, Celery, PostgreSQL, Amazon S3, AWS Glue, Athena, and Redshift for Reddit data extraction, transformation, and loading
- Orchestrated ETL tasks, managed task distribution, and applied AWS services for efficient data cataloging, storage, and analytics

SKILLS

- **Programming Languages:** Java, C++, C#, Python, JavaScript, HTML, CSS, SQL
- **Operating Systems:** Linux, MacOs, Windows
- **Databases and Big Data Technologies:** MongoDB, MySQL, SQL server, HDFS, Spark, Snowflake, Apache Airflow, Kafka
- **Tools and Frameworks:** Rest API, SPICE, FastSPICE, AWS, Flask, FastAPI, Selenium, Jira, Git, Tableau, PowerBI

EDUCATION

University of Fairfax, VA, USA   *Feb 2024 - Jun 2025*
Master's, Computer Science (3.54/4.0)   *Salem,VA*
- **Coursework:** Advance Database Management Systems, Computer Networking and Telecommunications, Advanced Software Engineering, Cloud Computing, Operating Systems, Design and Analysis of Algorithms, Design and Development of Security Architectures

Bharath Institute of Higher Education and Research, Chennai, India   *Jun 2018 - May 2022*
Bachelor's, Computer Science (8.11/10)   *Chennai, India*

Certifications

- Various Certifications: Programming Foundations: Fundamentals | Game Development | DevOps.