Samba Gangineni

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EDUCATION

BOSTON UNIVERSITY
MSc in Computer Info Systems
Grad. Jan 2020
GPA: 3.86 / 4.0

COURSEWORK
Big Data Analytics with Spark
Artificial Intelligence
DataMining & Business Intelligence

R.V.R & J.C C.E
B.Tech in Civil Engineering
Grad. May 2017
GPA: 9.23 / 10.0

COURSEWORK
Programming with C + Practicum
Database Management System
Computer Programming in CEngg
(Teaching Asst)

SKILLS

PROGRAMMING
Javascript • Kotlin • Python • Java •
React • Flask • Go • SQL • bash •
HTML • CSS • HCL •

DATABASES
MongoDB • MSSQL Server •

FRAMEWORKS & TOOLS
Temporal • Spring Boot • Spark •
TensorFlow • Rabbitmq • Docker •
Kubernetes • Helm • Terraform •
Pulumi • AWS • Git • Jenkins •

LINKS

LinkedIn: in/samba-gangineni
Github: samba-gangineni
DevPost: samba693
StackOverflow: users/8721887/

SPORTS

2016	College, Chess	1st place
2016	University, Chess	1st place
2015	College, Chess	3rd place

VOLUNTEER

| 2016 | RVRJC, Sports | Organizer |
| 2016 | RVRJC, Fest | Organizer |

EXPERIENCE

AVAILITY | Software Engineer IV
Feb 2020 – Present | Boston, MA

- Designed and implementing a microservices-based stateless product pipeline with event-driven architecture on Temporal, aiming to make data storage optional and eliminate MongoDB.
- Led the successful transition of infrastructure code and customer environments from Pulumi to Terraform, improving infrastructure-as-code management and cloud infrastructure stability.
- Achieved a 5x performance improvement in FHIR data deduplication, minimized database and RabbitMQ load, and ensured high data accuracy by introducing a redesigned architecture and Kotlin coroutines, effectively reducing lock contentions and system bottlenecks.
- Streamlined FHIR data ingestion using Temporal, managing CI/CD and deployment into EKS using Terraform to drive efficient product integration and scalable healthcare data processing.
- Spearheaded MongoDB sharding for a large-scale healthcare data, redesigning application queries to boost performance and regenerating 6 billion FHIR resources to support 10 million patients.
- Managed large-scale claims data ingestion leveraging Spark, AWS Lambda, EMR, and Kubernetes, delivering efficient and fault-tolerant data processing for a population of 13 million patients.
- Built a clinical inference model to detect gaps in patient data, improving data integrity and supporting better health outcomes.
- Created realistic clinical synthetic notes using GPT-2 models and classifiers, simulating actual patient notes to support rigorous product testing, refinement.
- Automated terminology updates, enabling data normalization and actionable insights for informed decision-making, particularly during COVID-19.

DIAMETER HEALTH | Informatics and Engineering Intern
Jun 2019 – Aug 2019 | Boston, MA

- Developed a transpiler in golang that converts clinical quality language into JavaScript, automating boilerplate code generation and streamlining development.
- Designed and implemented a synthetic data clinical HL7 message generator in JavaScript, providing a tool to improve product quality and accelerate testing and development cycles

RESEARCH

ACM DEBS 2019 | Distributed and Event Based Systems

- Architected a real-time object detection system for LiDAR data using clustering and convolutional neural networks.
- https://doi.org/10.1145/3328905.3330297

AWARDS

2019	ACM DEBS Grand challenge winner (Object recognition)
2018	1st place in BigRedHacks (ResQu - An SOS application)
2018	3rd place in Att Hacks (Imound - An app for visually challanged)