Gundam Satyabhama Reddy

Seeking Full-Time Software Engineer/Data Analyst Roles
Portfolio: https://satyabhama-reddy.github.io/

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Education

- **Texas A&M University** — College Station, TX
  Master of Computer Science; GPA: 4.0/4.0 — *Aug 2022 - May 2024*
- **PES University** — Bangalore, India
  Bachelor of Technology in Computer Science and Engineering; CGPA: 9.56/10 — *Jul 2016 - May 2020*

Technical Skills

- **Languages**: Java, Python, C++, C, C#, SQL, Shell scripting, Scala, R, JavaScript, PHP, HTML, CSS
- **Frameworks/Lib**: Spring Boot, .NET, Spark, JUnit, Scikit, React, PyTorch, TensorFlow, Laravel, Django, Flask
- **Technologies**: Kubernetes(AKS), Hadoop Ecosystem, Zookeeper, Grafana, MySQL, Prometheus, PostgreSQL, Druid, SingleStore, Version Control(git), Jenkins, Azure, AWS, Docker, Heroku
- **Certifications**: 'Technology Summer Engagement Program' by Paycom, 'Advanced Java Programming' & 'Learning Kubernetes' by LinkedIn Learning

Work Experience

- **Akamai Technologies** — Bangalore, Karnataka
  Software Engineer — *Aug 2020 - Aug 2022*
  - **Automated Certificate Rotation**: Devised and developed an automated process to rotate certificates essential for communication of approximately 3000 nodes, ensuring uninterrupted data communication with zero downtime. This automation minimized the need for manual interventions, resulting in significant time savings for the DevOps team.
  - **ASGARD (an in-house Spark-based data warehouse solution) - Asynchronous Query**: Designed and implemented non-blocking asynchronous querying feature into ASGARD, enabling execution of batch jobs. This led to completely moving away from existing Snowflake infrastructure, resulting in substantial cost savings for Akamai.
  - **ASGARD - Query Statistics**: Enhanced ASGARD's query API by implementing query statistics collection, leading to better insights into metrics like IO & processing times, and data transfer volumes. These were leveraged to optimize query performance.
  - **Observability**: Created alerts & monitoring dashboards using Prometheus Alertmanager, Slack and Grafana.
- **Akamai Technologies** — Bangalore, Karnataka
  Spring Software Engineering Intern — *Jan 2020 - Jul 2020*
  - **Real-time processing system on Hadoop**: Designed and implemented a Spark streaming based real-time processing system with Hadoop-stored data, aiming to evaluate its performance against an established Akamai solution.
- **Akamai Technologies** — Bangalore, Karnataka
  Summer Software Engineering Intern — *Jun 2019 - Jul 2019*
  - **Comparative study of big data stores**: Conducted a comprehensive analysis of different data storage systems, including Druid, SingleStore, and an internal Akamai database. The work involved stress testing the data stores with high volumes of data to check for ingestion and query performances.

Teaching Experience

- **Texas A&M University** — College Station, TX
  Teaching Assistant — *Aug 2022 - Jun 2023*
  - **Teaching Assistant**: As a Teaching Assistant for "Distributed Systems" and "Compiler Design" courses, facilitated office hours to aid students, administered assignments, improved course content and conducted lectures as necessary.

Academic Projects

- **Selfless Acts**: Developed a cloud-based application to share kind acts. The microservices in this application are containerized using dockers and managed by an orchestrator built from scratch which deals with Load Balancing, Fault Tolerance, and Auto Scaling of containers. Technologies Used: AWS VMs, Flask, HTML, CSS, Javascript, and PHP. (Jan - May 2019)
- **Cricket League Score Prediction**: Developed a cricket match prediction application utilizing Hadoop, Spark, BeautifulSoup module, K-means clustering, Map-Reduce, and Decision trees. Analyzed players' and teams' performance data to forecast match outcomes, demonstrating proficiency in advanced technologies and data analytics. (Aug - Dec 2018)
- **CookEase**: Revolutionized recipe management by implementing dynamic recipe suggestions based on current pantry ingredients. Ingredients are automatically extracted from any grocery bill using OCR. For an efficient, user-friendly experience, innovative techniques such as predictive fetch, multistage download, and local storage were used. (Aug - Dec 2019)

Publications

- **Face Image Super Resolution using a Generative Adversarial Network**: K. Varma, G. S. Reddy and N. Subramanyam, 2021 Smart Technologies, Communication and Robotics (STCR), 2021 [Link]

Awards

- Recipient of multiple scholarship awards in my bachelor's and master's for distinguished merit in academics.
- 'Gigabyte Award - One Akamai' and 'Megabyte Award - Urgency & Persistence' for my contributions at Akamai.