Samyuktha Venkatesan

+1 408-759-3718 | svenkatesan2@scu.edu | https://www.linkedin.com/in/samyuktha-venkatesan-84b3b2170 | https://github.com/Vsamyuktha

Education

- Santa Clara University
  Masters in **Computer Science**   *GPA*: **3.96** out of **4**   (Sept 2023 - June 2025 (Exp))
  Relevant Coursework: Distributed Systems, Algorithms, Computer Architecture, Machine Learning, Deep Learning

- College of Engineering (CEG), Anna University, Chennai.
  Bachelor of Engineering in **Computer Science**   *GPA*: **9.84** out of **10**   (July 2015 - April 2019)
  Relevant Coursework: Cloud Computing, Database Management Systems, Web Technology

Work Experience

Graduate Research, Santa Clara University, Santa Clara   (April 2019 - Current)
- Currently working on Road Object Detection in Fisheye Images as part of AI City Challenge.

Software Engineer, Citigroup, Chennai   (July 2019 - October 2022)
- Managed the design and development of **Apache Flink** Services to enable **distributed** parsing, storing, and publishing of billions of risk result data in **parallel**, leading to a 35% performance enhancement.
- Enhanced operational efficiency by optimizing the deployment process of Flink services, implementing a Flink cluster within an ECS environment, and automating the submission and initialization of Flink jobs.
- Designed and implemented a versatile framework for automating scenario-based testing, resulting in approximately 40% reduction in manual effort. Leveraged technologies such as **Cucumber**, **Angular, Java,** and **Spring Boot**.
- Collaborated on several Spring Boot **microservices** dedicated to trade risk calculation, enhancing their capabilities.

Intern Analyst, Citigroup, Chennai   (June 2018 - August 2018)
- Implemented a **web application** using **Angular, Bootstrap, Java,** and **Spring Boot** to validate data synchronization between the database and cache which was achieved by offering real-time data discrepancy highlighting.

Projects

Distributed File Sharing System   (May 2024 - June 2024)
- Designed a robust and scalable architecture that integrates load balancers, Chord Distributed Hash Table (DHT) for efficient file retrieval, Ping-ACK protocol for reliable failure detection, and Ring Election Protocol for leader selection.
- The system was deployed on **Amazon EC2** ensuring high availability and reliability, achieving an upload latency of 4.68 seconds and a download latency of 2.19 seconds during concurrent access to 50 files.

Social Media Website   (May 2024 - June 2024)
- Developed a social media platform using **ReactJS** and **MySQL**, enabling users to create, view, delete posts, follow/unfollow people, and engage with content through likes and comments.

Vehicle Detection using Transfer Learning   (Feb 2024 - Feb 2024)
- Applied transfer learning with YOLO and Faster R-CNN using **PyTorch** for object detection on three vehicle types, achieving an **88.17%** mAP score on the test dataset with Faster R-CNN.
- Trained the model on NVIDIA V100 GPU and performed hyperparameter tuning to achieve optimal results.

Scholastic Distinctions

- Honored with a **Gold Medal from Anna University** for maintaining the highest academic performance from 1-5 semesters.
- Earned a place amidst top 3 students from a batch of 185 students for a **Foreign Technical Training Program** at **Swinburne University, Australia** sponsored by the Government of Tamil Nadu.
- Achieved multiple scholarship endowment for being the **Best Outgoing Student in Computer Science** and for securing **highest CGPA** at **Anna University.**
- Earned recognition with a **bronze award** for my contributions to Flink services in Citigroup.

Skills

Programming Languages: Java, Python, JavaScript, C++, C
Web Based Technologies: Spring Boot, Angular, ReactJS, Bootstrap, HTML, MySQL, Oracle, PHP, MongoDB
Software Engineering: Agile, TDD, BDD, Managing scrum meetings
Miscellaneous: Apache Flink, PyTorch, Docker, OpenShift, Linux, Kafka, Junit, Bitbucket, Udeploy

Leadership And Activities

- Key member of *Prometheus* at Citigroup, a program focused on enhancing female representation in technical roles.
- Took part in several social welfare programs as a member of National Service Scheme (NSS) at Anna University.