Sreeram Ganesan

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EDUCATION

Master of Science in Computer Science   Expected May 2023
University of Colorado Boulder, Boulder, CO; GPA: 3.90/4

Bachelor of Technology in Computer Science   Jul 2018
Amrita School of Engineering, Amrita University, Coimbatore, India; GPA: 3.53/4

SKILLS

Languages: Java, Python, Go, SQL, HTML, CSS, Javascript
Frameworks/Libraries: Spring Boot, Flask, NodeJS, React
Databases: Oracle, MySQL, Aurora, MongoDB, DynamoDB, Cloud Spanner, BigQuery, Cassandra
Tools & Technologies: RESTful Web Services, Microservices, Cloud Computing, Serverless, Git, Mercurial, Gradle, Jenkins, Docker, Kubernetes, CDK, Terraform, gRPC, Redis, Linux, JAX-RS, Map Reduce, Spark, Functional Programming, AWS, Google Cloud, OpenId Connect, Authentication, OAuth, Load balancing, RabbitMQ, Kafka, eBPF, XDP, Apache OpenWhisk

EXPERIENCE

Software Engineering Intern   Aug 2022 - Dec 2022
Google   Boulder, United States

○ Designed, developed and released an automated schema roll-out framework which enables Google Cloud and its partners to modify the schema of existing billing exports without any data copy/duplication.

○ Automated the feature roll-out process for 170+ Google Cloud partners, reducing the time to roll-out new features from 4 weeks(done manually) to less than a week(completely automated).

Software Engineering Intern   May 2022 - Aug 2022
Amazon Web Services   Palo Alto, United States

○ Architected and engineered an internal tool to automatically validate and rank the Standard Operating Procedures(SOP) for fixing production issues in the Aurora Database using AWS services like Lambda, SNS, SQS and DynamoDB.

○ Significantly reduced the time taken to analyze, identify and review SOPs which are crucial for maintaining Aurora in production.

Software Engineer   Jun 2019 - Jul 2021
Oracle   Hyderabad, India

○ Achieved 3X performance gain by developing new microservices with Java to import and export large amounts of data via Excel and other third-party apps. Reduced server cost by 34% compared to the legacy implementation.

○ Led a team of three to prototype and construct a novel revenue forecasting solution. Worked closely with product managers to incorporate customer feedback and improved the forecast by 13%.

○ Increased productivity by 20% by establishing an automated API documentation process using Swagger plugins.

Associate Software Engineer   Jan 2018 - May 2019
Oracle   Hyderabad, India

○ Created RESTful APIs to configure, generate and export mission-critical reports for R&A, a data analytics tool used by restaurant chains such as Starbucks, Dunkin, KFC, etc to optimize sales, operation costs, inventory, etc.

○ Decreased the turnaround time for critical bugs by 41% by re-architecting the legacy modules and their build process.

○ Devised a proof of concept for an internal framework to build mobile applications with the web development stack - HTML, CSS and Javascript, which cut down the development time of mobile apps by 45%.

PROJECTS

Accelerating the communication between Serverless functions using RDMA   Ongoing

○ Serverless computing is mainly targeted for stateless functions that do minimal I/O and communication. The existing solutions to use Serverless computing for Stateful functions are not very efficient.

○ This project achieves high performance inter-function communication by co-locating the functions on the same VM or by using RDMA when the functions are located on different VMs.

○ Tech Stack - Python, Shell scripting, Docker, Kubernetes, Apache OpenWhisk

Efficient data processing using eBPF XDP ↗   Aug 2021 - Dec 2021

- Achieved better performance compared to the existing data-processing systems by processing data at the network layer instead of the application layer as there is a cost to move the data from the file system to the application layer to process them.
- Injected rules using eBPF at the XDP layer (at the kernel level) before the data packets are passed to the application layer.
- Tech Stack - Go, eBPF, XDP, Redis, Kafka, Docker, Kubernetes

F7 Fitness Hub - Social Fitness Network ↗   Dec 2020 - Jul 2021

- Architected and developed mobile applications for a medium-sized gym to build a community for their clients to virtually participate in various workouts from their mobile.
- Responsible for supporting clients and generating 100% of the revenue for the business during COVID-19 pandemic lockdowns.
- Tech Stack - Java, Spring Boot, MySQL, React Native.

Revenue Forecasting with Machine Learning   May 2020

- Engineered a system to forecast the revenue of restaurants with Machine Learning. Engineered an ExtraTrees Regressor-based ML model that predicted the weekly revenue of restaurants with a mean absolute error of less than 15%.
- Tech Stack - Python, Flask, Tensorflow, Oracle JET, Oracle Database.

ACHIEVEMENTS

Felicitated by the Minister of Rural Development, Government of India - Established a beneficiary management application for a government program. Constructed dashboards and reports to measure the impact of the program.

Inspiration Award - Awarded by Persistent Systems for winning the Smart India Hackathon.

Second Runner Up, Honeywell Hackathon - Developed a chrome extension for personalised product recommendation.

CERTIFICATION

Oracle Cloud Infrastructure Foundations 2020 Certified Associate (08/2020)