Manik B. Somayaji

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Work Experience

Goldman Sachs Services Private Limited.   **Bengaluru, India**
Software Associate (SDE-2)   *August 2020 - Present*

- **RAD:** Lead developer in Report Automation and Delivery(RAD) team in Asset Management Division with primary focus on Data Quality, Report Generation and Scheduler.
- **Data Quality:** Created Data Validation Service by integrating the decision management tool-Signavio. This enabled users to create custom, formalized rules to be applied dynamically in data pipeline, thereby resulting in 3HC operational efficiency gain by minimizing manual report verification. *Skills: Java, Springboot.*
- **Rule Engine:** Designed and developed an in-house rule engine, to replace Signavio, offering a user-friendly drag-and-drop UI for SQL-based rules (Decision Nodes) along with the existing data transforms.
- The UI also offers semantic layering - making it best suitable for users to setup business rules. This was built on Apache Flink, UI utilizes JointJs and ReactJs.
- **HTTP Connector:** Developed an HTTP Connector plugin for Trino. The HTTP Connector played a vital role in data readiness check, enabling direct application of SQL rules on the JSON responses of the upstream data readiness APIs. *Skills: Trino(formerly Presto), Design patterns*
- **Report Generation:** Spearheaded the integration of RAD with SmartDx for the report Rendering. Designed the service based on event-driven architecture, scaling up the platform from generating 36 to 10000 reports per hour. *Skills: Micro-services, multi-threading, Kafka*
- **Cobe Scheduler:** Contributed to Cronicle - an *open-source* cron-based multi-server task scheduler and runner, with the addition of holiday calendar support to implement business day schedule calculation logic. Performed comparative analysis between in-house RAD scheduler and cronicle, presented to senior management. *Skills: Javascript*

Intern   *January 2020 - June 2020*

- Moved the data extraction and aggregation logic from QlikView script to a Java service.
- Contributed to Client Reporting Platform's UI testing framework using Cypress.

Microsoft Innovation Lab   **Bengaluru, India**
Intern   *June 2018 - December 2018*

- Estimation of the 3D trajectory of the object using a polynomial regression technique
- Created 6DoF robotic arm powered by atmega2560 to catch the object thrown towards it

Center for Intelligent Systems   **Bengaluru, India**
Intern   *January 2018 - March 2018*

- **e-Yantra Competition- 2017-18:** Developed a harvester bot powered by Firebird-5 and Atmega2560, featuring OpenCV for accurate fruit identification and tracking. Qualified to the Final round of competition.

Education

PES University   **Bengaluru, India**
Electronics and Communication Engineering   *August 2016 - August 2020*
CGPA: 9.9

- **University Gold Medalist** (for highest academic standing in Electronics and Communication Department)

Tungal Ind. PU Science College   **Bijapur, India**
Science Stream   *June 2014 - May 2016*

- **JEE Advanced Rank- 5020 AIR, CET(State) Rank-356**, Secured 95.5% in PCMS.

Academic Projects

- **Denoising of Low-Dose CT Scan Images(LDCT Images):** Developed Wasserstein-GANS, Red-CNN models using PyTorch for denoising LD-CT Images as part of final year undergraduate project.
- **Image Captioning System:** Developed and conducted a comprehensive comparison of Merge, Pre-inject, and Par-inject LSTM Architectures using TensorFlow for Image captioning.
- **Reinforcement Learning based Game Agents:** Developed Q-Learning Agent for Tic-Tac-Toe and Policy Gradient Algorithm for 2048 Game.

Skills

- **Technical Skills:** Java, Python, ReactJs, Redux, Kafka, Apache Flink/Beam
- **Databases/Query Engines:** PostgreSQL, Elasticsearch, Trino(formerly Presto)
- **Redash:** Open-Source Contributor to Redash
- **Other Core Competencies:** Micro-services, REST Services
- **Online Courses:** Probabilistic Deep Learning with TensorFlow 2 (Coursera)