

# AYUSH GOEL

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## WORK EXPERIENCE

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### **Engineering Manager** – Core Engineering | Goldman Sachs, Bangalore (Jan 2020 – till date)

- Leading *Harmony* team in APAC region, *Harmony* is an enterprise level reconciliation platform which is an essential regulatory control-system for the firm. The platform reconciles over 2.5 billion trades per day across more than 1000 reconciliations. The team comprises of 18 engineers.
- Built an independent SRE team which focuses on aspects like platform reliability, metrics (SLI's) collection, stability, latency, availability, capacity management, support & incident reduction and business continuity plan. Using insights from the Team, we were able to save \$2Mn/year by increasing the throughput of the ETL process by 100%.
- Led the team through unprecedented market volatility during Covid (early-2020). Defined the first set of SLI's & SLO's for the platform which currently serve as platform benchmarks to gauge impact of various initiatives and help in prioritization of team goals.

### **Lead Software Developer** – Core Engineering | Goldman Sachs, Bangalore (July 2018 – Dec 2019)

- Responsible for design and development of a new reconciliation platform with microservice architecture capable of Cloud integration. This aims to replace the current platform which has a monolithic design developed in 2010. My role included technical design, project planning, managing delivery timelines and stakeholder expectations.
- Developed a new stateless reconciliation engine, the existing process used a third-party software for data caching which limited our ability to do on-demand scaling as we needed new licences every time we wanted to scale horizontally. The new engine is designed to be stateless thus eliminating the need of caching altogether.

### **Software Developer** – Core Engineering | Goldman Sachs, Bangalore (Oct 2015 – Jun 2018)

- Developed a model of the platform's ETL layer which is used to simulate its behaviour under various hypothetical scenarios and future load expectations. This gave us a prediction & visualization tool to determine resiliency and capacity of the service, and undertake scaling efforts accordingly.
- Designed a self-service platform for configuring reconciliation which could be used to create/update match rules and run a simulation on historic data to check the effectiveness of the new rules. This tool greatly improved user engagement and reduced the on-boarding time from 6 weeks to less than a week.
- Helped the Team deliver huge tech risk reduction by understanding, documenting and decommissioning a legacy workflow for exception routing, and a legacy ETL layer originally written in 1991. Both the flows were migrated to newer solutions. The effort was widely lauded by both the Tech and Business leaderships of the firm.

### **Decision Scientist / Data Scientist** – Fortune 1 client | Mu Sigma, Bangalore (July 2013 – Oct 2015)

- Helped the world's largest retailer identify shrink on a daily basis and take corrective measures which led to an estimated \$20Mn savings. Shrink in over 10,000 stores across 13 countries was reported through an automated Tableau report. The initiative was also cited in the quarterly business report of the company.
- Created a recommendation engine using the transaction history of products bought, which calculated affinity between products bought together. The tool is currently being used in campaign planning, product placement, store layout, product bundling, cross-selling etc.

## ACADEMIC PERFORMANCE

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Motilal Nehru National Institute of Technology, Allahabad (Batch of 2013)

B.Tech in ECE (Electronics & Communication Engineering)

Class	School	Year	Percentage
XII (CBSE Board)	Guru Teg Bahadur Public School	2009	90%
X (ICSE Board)	St. Mary's Academy	2007	94%

## TECHNOLOGIES

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- Languages: Java, Python, R
- Data extraction: Hadoop (Hive), SQL
- Visualization tools: Tableau, Jupyter Notebooks

## OTHER ACHIEVEMENTS

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- Member of core team of Culrav'13 & Avishkar'12, national level cultural & technical festival of MNNIT respectively  
As Marketing Secretary, spearheaded a 3-tier team of over 50 students, which generated ₹2.5Mn from over 50 sponsors.
- Qualified for national level Maths Olympiad.

## EXTRA-CURRICULAR ACTIVITIES & INTERESTS

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- Member of college robotics society, known for its autonomous robots
- Part of school cricket and table tennis teams
- Web 3.0 enthusiast and educator
- Worked with R&D team in Mu Sigma on a model of *Mars rover* which could navigate through obstacles to reach a target site using image processing and overhead mounted cameras

## CERTIFICATIONS

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- Neural Networks and Deep Learning – Coursera | Aug 2017  
Credential ID Z2R4Q8ES2GTB
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization – Coursera | Sep 2017  
Credential ID X8DLA4VGWTUK
- Structuring Machine Learning Projects – Coursera | Oct 2017  
Credential ID XGPNRHGW2JM7