SHIVAM ARORA

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Education

University of Michigan — Ann Arbor, MI
M.S. in Computer Science & Engineering — *Aug 2025 – Present*
Planned Coursework: Human-AI Interaction, Probability & Random Processes, Applied GPU Programming, Advanced Cryptography, Advanced Database Systems, Machine Learning, Advanced Scalable Systems, Natural Language Processing, Reinforcement Learning Theory

Thapar Institute of Engineering and Technology — Punjab, India
B.E. in Computer Science; ***GPA: 3.98/4.00 (9.77/10.00)*** — *Aug 2017 – Jun 2021*

Work Experience

Goldman Sachs — Bengaluru, India
Associate - Technology — *Jan 2024 – July 2025*
- Led architecture of a **Spark, AWS Glue, and Snowflake-based** insurance calculator, **processing 6M+ daily deposit accounts with a 20-minute SLA**. Delivered accurate pre-9AM ET calculations enabling timely deposit record keeping.
- Architected one of the **firm's first cloud-native AWS data pipelines** to process US deposit information, including **customer PII**. This project **improved the precision of the data by 99%**, drove data standardization between divisions and ensured compliance with federal regulations **(FDIC Part 370)**

Goldman Sachs — Bengaluru, India
Analyst - Technology — *Jul 2021 – Dec 2023*
- **Automated and streamlined** end-to-end German Deposit Protection and other European regulatory reporting systems using **Java, SQL, REST APIs, and Sybase IQ.**
- This effort **improved the EdB regulatory rating from E (Fail) to B and reduced quarterly reconciliation effort by 60%.**

Goldman Sachs — Bengaluru, India
Intern - Technology — *Jan 2021 – Jun 2021*
- Developed a full-stack reconciliation platform (**React, Java Spring**) that automated reconciliations between firms General Ledger and Regulatory Reporting data, **serving 500+ professionals (Controllers)** and **saving over 800 person-hours each quarter.** This performance earned a **Pre-Placement Offer.**
- Collaborated in an **Agile environment**, **transitioning 300+ legacy screens to modern GS Web stack** with **comprehensive JUnit testing framework.**

Selected Research Projects

Navigation System for the Visually Impaired
- **4-person Capstone Team**, Thapar Institute of Eng. & Technology, India; **Advisor:** *Dr. Ashutosh Mishra*
- Architected an IoT-based wearable navigation system for the visually impaired, using **Arduino, Node.js, and Google Maps API**. The system achieved **99.2% obstacle detection accuracy** with a **sub-3 second haptic response time**.

Brain Signal Controlled Prosthetics
- **2-Month Research Internship**, Indian Institute of Technology (IIT), Delhi; **Advisor:** *Dr. Soutik Betal*
- Developed an EEG-based prosthetic control system that integrated hardware with a **Convolutional Neural Network (CNN)**, **reducing setup time by 75% and enabling high-accuracy**, real-time prosthetic control.

Awards & Recognitions

GS Controllers India Award (2022): Recognized for exceptional performance in architecting and implementing and help mitigating risk for the German Deposit Reporting at Goldman Sachs.

Merit Scholarship (2017–2020): Awarded for sustained academic excellence, consistently ranking in the top 10% of the program cohort

National Math Olympiad (2015): Achieved a perfect 100% score in the national-level competition organized by the Homi Bhabha Centre For Science Education (HBCSE).