

Rishab Acharjee

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EDUCATION

National Institute of Technology Durgapur, India

Bachelor of Technology in Computer Science and Engineering

Expected Jun 2026

SGPA: 8.78

TECHNICAL SKILLS

Programming:	C, C++, Python, Java, JavaScript, SQL, HLS C++, Verilog
AI/ML & Gen AI:	Deep Learning (PyTorch, TensorFlow, Keras), Transfer Learning, Reinforcement Learning, Generative AI, RAG, LangChain, LangGraph, Agentic Systems, Vision Transformers, GANs, NLP, Model Optimization (Quantization, Pruning, ONNX)
Big Data & Cloud:	Apache Spark, Kafka, Ray, Hadoop, AWS (EC2, Lambda, S3, EMR, SageMaker), Azure, Databricks, ETL Pipelines
Databases:	PostgreSQL, MongoDB, MySQL, Firebase, NoSQL, Vector Databases (Pinecone, ChromaDB, FAISS), Data Modeling
Web & APIs:	React, Next.js, Node.js, Express, NestJS, REST APIs, GraphQL, gRPC, Microservices Architecture
DevOps & Tools:	Docker, Kubernetes, Git, Bitbucket, CI/CD Pipelines, Software Testing, Agile/Scrum
Core CS:	Operating Systems, Computer Networks, SDLC, Systems Design (HLD & LLD), DSA, DBMS, OOPS

WORK EXPERIENCE

Zluri

SDE Intern (Incoming) | [Offer Letter](#)

Expected Jan 2026

Bangalore

Infinity Analytics Consultancy

Data Engineer Intern | [Offer Letter](#)

Oct 2025 - Dec 2025

Remote

- Architected **real-time data ingestion pipelines** using **Apache Kafka** orchestrated on **Kubernetes**, enabling elastic auto-scaling and fault-tolerant processing of high-velocity streams from CRM systems (Zoho), Facebook Ads, and third-party vendor APIs.
- Restructured **database schemas** for petabyte-scale historical datasets, aligning with **AWS S3** bucket structures and implementing **Bitbucket**-based version control for seamless CI/CD integration across data engineering workflows.
- Executed large-scale **data validation and quality assurance** using **AWS EMR with Apache Spark**, deploying distributed algorithms to detect anomalies, deduplicate records, and ensure schema consistency across massive datasets.
- Established a unified **Data Lake architecture** with raw, processed, and enriched zones; created automated **dashboards** for real-time pipeline monitoring, latency tracking, and actionable client reporting.

BOSCH (BGSW) Pvt. Ltd

AI Engineer Intern | [Completion Letter](#)

May 2025 - Jul 2025

Bangalore

- Constructed a **Generative AI-powered Data Governance Platform** integrating Kafka, IoT sensors, and cloud pipelines for enterprise-scale data management and compliance automation.
- Orchestrated distributed data workflows on **Apache Spark, Ray, and Databricks**, integrating **Agentic RAG** with **vector databases** to automate validation pipelines, reducing manual checks by **70%** and cutting processing latency by **35%**.
- Reduced data errors by **40%** and processing time by **30%** on petabyte-scale datasets; collaborated with **5 engineers** ensuring compliance with enterprise data policies across **10+ departments**.

NIT Durgapur (Prof. Parag Guha)

Research Intern - Hardware-Accelerated AI System

Jan 2025 - Apr 2025

Durgapur

- Engineered a VLSI-based AI system for fruit ripeness detection using **Vision Transformer with Transfer Learning**, K-Means clustering, and XGBoost, achieving **98.9%** classification accuracy with **60 FPS** throughput on FPGA.
- Integrated a **Q-learning (Reinforcement Learning) agent** to dynamically adjust detection thresholds, enabling self-adaptation to varying illumination and boosting accuracy consistency by **30%** across low-light and high-glare conditions.
- Optimized FPGA acceleration with **HLS C++ and Verilog**; reduced power consumption by **25%** via **INT8 quantization** and efficient memory allocation achieving sub-15ms inference latency.

PROJECTS

Supply Chain Platform: Agentic Approach

NestJS, Next.js, AWS, CrewAI, Autogen, Docker, LangChain, Firebase, Mapbox

Nov 2024

[Demo](#)

- Launched a cloud-native logistics optimization platform for **200+ retail outlets**; improved demand forecasting accuracy by **25%** using SARIMAX time-series models and Digital Twin simulations for scenario planning.
- Implemented a **multi-agent last-mile routing solution** that decreased delivery delays by **20%**; architected hybrid **PostgreSQL-Firestore** database with **RBAC/ReBAC** security, remediating 3 critical vulnerabilities.

RAG Chatbot with Document + Video Support

LangChain, Streamlit, Python, ChromaDB, Generative AI

Aug 2023

[GitHub](#)

- Created a **Retrieval-Augmented Generation (RAG)** chatbot with **vector database** integration, supporting **50+ PDFs and YouTube links weekly**; integrated Arxiv/Wikipedia APIs, enhancing retrieval efficiency by **60%**.

ACHIEVEMENTS

- **Juspay Hiring Challenge 2025:** Qualified for Semi-Finals (**Top 2%** out of 1,00,000 participants) among India's top engineering talent.
- **Competitive Programming:** Solved **250+ problems** across platforms; Codeforces Specialist (Max Rating: **1447**); **150+** LeetCode solutions.

LEADERSHIP

Senior Coordinator, Inter-NIT Sports Competitions:

Managed end-to-end logistics and scheduling for **3+ national-level tournaments**, coordinating **100+ participants**.

Aug 2023 - Present