Ishank Sharma - Software Engineer

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SUMMARY

Highly accomplished Computer Science graduate student with 3+ years of progressive experience in developing scalable, data-intensive applications and robust data pipelines using Snowflake and Databricks. Proven track record of optimizing performance, reducing costs, and delivering impactful technical solutions, recognized as a national hackathon winner and open-source contributor.

EDUCATION

California State University, Long Beach GPA: 4.0/4.0

Master of Science in Computer Science Expected May 2026

Relevant Coursework: Advanced Analysis of Algorithms, Advanced Al, Software Architecture & Des

Ramaiah Institute Of Technology, Bengaluru, India Aug 2017 - May 2021

B.E Information Science and Engineering GPA: 3.75/4.0

TECHNICAL SKILLS

• Languages: C, C++, Java, Python, Javascript

• Libraries: Spring, Node.js, Flask, Fast API, Keras, Tensorflow, PyTorch, Scikit Learn

Databases and Cloud Data Warehouses: MYSQL, MongoDB, Redis, Databricks, Snowflake

Cloud/Tools: AWS (Lambda, EC2, SQS, Step Functions), Docker, Git, Linux

PROFESSIONAL WORK EXPERIENCE

California State University, Long Beach - College of Business, Long Beach, California

Graduate Research Assistant (Python, HTML, CSS, JS, Machine Learning)

Feb 2025 - May 2025

Achieved 95 % accuracy in detecting viewer focus zones on digital ads and created a novel KDE powered heatmap overlay that streams in real time on video, giving stakeholders instant visual insights into shifting attention.

CommercelQ

Software Engineer (Intern \rightarrow SDE I \rightarrow SDE II) (Python, Java, Databricks, SQL, Snowflake)

Feb 2021 - Aug 2024

- AWS-based Recommendation System: Built a media budget recommendation pipeline with AWS Step Functions, SQS, Lambda, and 40 SQL modules, predicting ad spend with 95% accuracy and saving clients \$200K annually while reducing processing time from 1 day to 3 minutes.
- **Cold Start Recommendation:** Designed and deployed a synthetic data solution integrating sales and advertising performance data, delivering recommendations with **90% accuracy** for clients without historical ad performance.
- Data Warehouse Migration (Snowflake to Databricks): Orchestrated migration of a budget prediction feature, reducing infrastructure costs by 52% and improving latency by 80% through strategic indexing and broadcast joins.
- Amazon Advertising Campaign Platform: Engineered a platform for creating and managing Amazon advertising campaigns, boosting user productivity and campaign effectiveness.
- **Automated Strategy Execution Pipeline for Criteo Ads:** Developed an automation pipeline to optimize Criteo advertising campaigns, enhancing ad performance and operational efficiency reducing manual campaign operations by **60**%.
- **Multi-Cluster Warehouse Simulation:** Simulated high-load multi-cluster environments in Snowflake to evaluate and optimize concurrency performance for dynamic SQL workloads.
- **Performance Monitoring Dashboards:** Crafted TP99 performance dashboards with New Relic, doubling transparency into page load times and accelerating bottleneck identification.
- **Custom SQL Migration Layer (Snowflake to Firebolt):** Bench-tested Firebolt vs Snowflake with custom migration layer, cut migration time **by 40%.**

OPEN SOURCE CONTRIBUTIONS

Firebolt Data Warehouse (<u>Github</u>)

Developed and owned an end to end geospatial analytics dashboard that fetches accidents dataset on an interactive map, **implemented connection pooling** to enhance latency of the dashboard **increasing QPS by 85%.**

• Retrieval Augmented Generation Implementation (Github)

Constructed a retrieval-augmented generation pipeline utilising LangChain and Python, achieving a 40% reduction in AI hallucination while improving contextual accuracy based on BLEU scores.

• Internet Archive

Archive.org: Added keyboard support for zooming in/out on Safari and increased test coverage. (<u>Github</u>)

OpenLibrary.org: Enhanced SEO by adding metadata to the index page, improving search visibility and ranking. (<u>Github</u>)

BookGenomeProject.org: Developed an XML parser for identifying page types in Internet Archive books. (<u>Github</u>)

ACHIEVEMENTS

- Winners Smart India Hackathon Largest National Hackathon with over 200,000+ Participants
- Runners Up Microsoft IncubateIND Innovation Series Hackathon
- <u>Top 1.2%</u> on Competitive Coding Platform CodeWars