Ishank Sharma

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EDUCATION

California State University, Long Beach Aug 2024 - May 2026

Master of Science in Computer Science GPA: 4.0/4.0

Key Courses - Advanced Algorithms, Advanced Artificial Intelligence, Advanced Software Engineering

Ramaiah Institute of Technology, Bengaluru

B.E in Information Science and Engineering

GPA: 3.75/4.0

Key Courses - Algorithms, OS, Data Science, Machine Learning and AI, Databases, Big Data, System Design.

SKILLS

- Languages: Python (Advanced), Java (Intermediate), Javascript (Intermediate)
- Backend Libraries/Frameworks: SpringBoot, NodeJS
- Databases: MYSQL, MongoDB, RDS
- Cloud Technologies: AWS, Databricks, Snowflake, Firebolt
- Tools: GIT, Maven, New Relic, Heap, CI/CD Pipelines
- Other Skills: Prompt Engineering

EXPERIENCE

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

Graduate Research Assistant (Python, Deep Learning)

Feb 2024 - Present

- Research Focus: Leveraging Python and deep learning to analyze eye gaze datasets for advanced user engagement studies.
- **Impact:** Contributing to innovative research that bridges computer science and business analytics, driving insights into human and digital ads interaction for enhanced digital advertising experiences.

CommerceIQ, Bengaluru, India

CommerceIQ is a unicorn startup revolutionizing Al-powered e-commerce advertising management for 2,200+ global brands.

Software Development Engineer II (Python, Databricks, SQL, JavaSpark)

Aug 2021 - July 2024

- Budget Prediction System: Crafted a recommendation engine grounded in statistical models, using historical e-commerce data
 enriched with seasonality and weighted factors. This tailored system provided precise advertising budget forecasts, aligning
 spend with sales uplift and maximizing efficiency.
- Data Model Platform for Al-Driven Deck Builder: Engineered the data foundation for an Al system that autonomously generated
 weekly decks, leveraging large language models. This improved prompt accuracy and distilled data insights, making reports more
 actionable for clients.
- **Cold Start Solution:** Tackled the cold start challenge by architecting a SQL workflow that synthesized sales and ad data, yielding robust recommendations for new customers with no prior data.
- **Optimized Data Pipelines:** Reduced Snowflake pipeline costs by 70% through a strategy of date-specific backfilling, trimming resource use, and eliminating redundant processing.
- Migration from Snowflake to Databricks: Led a seamless migration of the budget prediction feature, reducing infrastructure
 costs by 52% and cutting latency by 80% using indexing and broadcast joins. This upgrade positioned the system for advanced AI
 capabilities.
- Developed a Real-Time Advertising Platform: Built campaign management platform for fetching real-time (hourly) ads and sales data, enabling users to perform real-time bidding on the CommerceIQ e-commerce platform for Amazon, Walmart, Target and Instacart etc.
- **SQL Migration Layer:** Streamlined database migration from Snowflake to Firebolt, simplifying the transition with a custom SQL migration layer using extensible design patterns.
- **New Relic Dashboard:** Delivered a dashboard for page load metrics like TP99, aiding in performance assessments and refining user experience.

Internet Archive, San Francisco, California (Remote)

Open Source Contributor (Volunteer Work)

Mar 2020 - Dec 2020

- BookGenomeProject.org: Developed an XML parser for identifying page types in Internet Archive books and introduced stop
 words for improved text cleanup.
- Archive.org: Added keyboard support for zooming in/out on Safari and increased test coverage to improve user experience.

SIDE PROJECTS

- Retrieval Augmented Generation Implementation AI (Supports LLMs, OpenAI, Claude and Open Source Models like Llama)

 Developed an AI solution that integrates RAG with LangChain for dynamic, context-aware responses.
- Beats Allocation for NCRB Applications (MapBox, Vanilla Javascript)
 - Developed a smart patrol allocation system that visualizes hot zones and provides real-time alerts on interactive maps
- Mock Server Backend (NodeJS)

Built a mock REST server to aid front-end developers in rapid API prototyping and supports dynamic entities, CRUD and smart filters including multiple search in a single query.