# **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 Ramaiah Institute of Technology, Bengaluru Aug 2017 - May 2021 B.E in Information Science and Engineering GPA: 3.75/4.0

**TECHNICAL SKILLS** 

- Languages: C, C++, Java, Python, Javascript
- Libraries: SpringBoot, NodeJS, Flask, Keras, Tensorflow, PyTorch, Scikit Learn
- Databases: MYSQL, MongoDB, Redis, Databricks, Snowflake, Firebolt (Intermediate)
- Operating Systems: Windows, Linux, MacOS

#### **EXPERIENCE**

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

### Graduate Research Assistant (Python, Deep Learning)

February 2025 - Present

Re-engineered a low cost eye gaze and face detection application to accurately capture eye movements and response to digital advertisements leveraging my web development and machine learning skills with a gaze accuracy of 95%.

#### CommercelQ

**Software Engineer II** (Python, Java SpringBoot , Databricks, SQL, Snowflake)

February 2021 - August 2024

- Budget Prediction System: Developed a budget recommendation pipeline using SQL, performing extensive data preprocessing and data cleaning on historical data, that predicted advertising spend with 95% accuracy, leading to a \$200k reduction in wasted customer ad spend.
- Designed and implemented backend data infrastructure for a real-time advertising platform, encompassing data collection, data storage, and data processing of 500,000+ hourly ad data points, ensuring data integrity and scalability...
- **Cold Start Solution:** Executed a novel data synthesis strategy using SQL to blend sales and ad campaign performance data, driving highly relevant product recommendations and bolstering engagement among new users by 22%. This enabled new clients with no historical data to get accurate Ad spend recommendations.
- Optimized Data Pipelines: Reduced Snowflake pipeline costs by 70% and improved resource allocation and resource optimization through a strategy of date-specific backfilling, trimming resource use, and eliminating redundant processing, enhancing overall system planning.
- **SQL Migration Transformer:** Streamlined database migration from Snowflake to Firebolt, simplifying the transition with a custom SQL migration layer using extensible design patterns.
- Migration from Snowflake to Databricks: Orchestrated a full migration of the budget prediction feature from Snowflake to Databricks, slashing infrastructure costs by 52% and decreasing latency by 80% using indexing and broadcast joins.

#### Internet Archive, San Francisco, California

#### **Open Source Contributor**

Mar 2020 - Dec 2020

- Archive.org: Added keyboard support for zooming in/out on Safari and increased test coverage.
- OpenLibrary.org: Enhanced SEO by adding metadata to the index page, improving search visibility and ranking.
- BookGenomeProject.org: Developed an XML parser for identifying page types in Internet Archive books and introduced additional stop words for improved text cleanup.

## **LEADERSHIP**

# Google Developers Student Club, Core Team Member | Web Admin

Help the day to day club activities, mentor juniors, manage the club's website, improve coding culture at college.

## **Academic Projects**

## Retrieval Augmented Generation Implementation AI

Constructed a Retrieval Augmented Generation pipeline utilizing LangChain, Python, achieving a 40% reduction in Al hallucination while improving contextual accuracy based on BLEU scores.

HyperParameter Tuning and Experiments with Deep Learning: Explored multiple optimizers. Plotted training and validation loss curves. Identified optimal hyperparameters for best test accuracy of MNIST dataset.

# **ACHIEVEMENTS**

- Winner, Smart India Hackathon: Designed an interactive map-based system for police monitoring and deployment with real time alerts sent from user's phone in case of emergency.
- Runner-Up, Microsoft IncubateIND Hackathon: Engineered an innovative women's safety platform by scraping Instagram posts and comments to extract real-time sentiment data, then leveraging geospatial analytics to dynamically designate locations as
- Honorable Mention CommercelQ AI Hackathon: Leveraged LLMs to classify product reviews by sentiment, enabling direct competitor comparisons and actionable insights for strategic brand positioning.