

## EDUCATION

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### California State University, Long Beach

*M.S. in Computer Science, GPA: 4.0/4.0*

Long Beach, CA

*Aug 2024 – May 2026 (expected)*

- **Concentrations:** Software Engineering & Information Internetworks
- **Coursework:** Advanced Analysis of Algorithms, Advanced Artificial Intelligence, Object-Oriented Programming, Objects & Software Design, Computer Organization, Database Systems, Computer Simulation and Modeling

## TECHNICAL SKILLS

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**Languages:** Python, JavaScript

**Libraries / Frameworks:** Node.js, Flask, FastAPI

**Databases & Warehouses:** MySQL, MongoDB, Redis, Databricks, Snowflake, Firebolt

**Cloud:** AWS (Step Functions, Lambda, EC2), SQS

## WORK EXPERIENCE

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

*Graduate Research Assistant (Python, Deep Learning)*

Long Beach, CA

*Feb 2025 – Present*

- Developing a web application to capture gaze patterns on digital ads and identify demographic patterns (age, gender) using heatmap clustering.

### CommerceIQ

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

Bengaluru, India

*Aug 2021 – Aug 2024*

- **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.
- **Cold Start Recommendation Strategy:** Designed and deployed a synthetic data solution integrating sales and advertising performance data, delivering recommendations with 90% accuracy for clients without historical ad performance.
- **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.
- **Sales Target Allocation SQL Module:** Implemented SQL-based logic to distribute annual sales targets across months with seasonality adjustments, enabling brands to monitor and achieve objectives effectively.
- **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 a real-time automation pipeline to optimize Criteo advertising campaigns, enhancing ad performance and operational efficiency.
- **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):** Built an extensible migration framework reducing database migration time by 40% and benchmarking Firebolt against Snowflake.

## OPEN SOURCE CONTRIBUTIONS

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- **Firebolt Data Warehouse:** Developed a geospatial analytics dashboard that fetches accident datasets on a map; implemented connection pooling decreasing overall latency 50%.
- **BookGenomeProject.org:** Developed an XML parser for identifying page types in Internet Archive books and introduced additional stop-words for improved text cleanup.