

APURVA BANKA

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EDUCATION

Master of Science in Computer Science [CGPA – 3.83/4] **University at Buffalo, New York** [Expected : Dec 2025]
Bachelor of Technology in Computer Science [CGPA - 8.32/10] **PES University, India** [Graduated : Aug 2020]

SKILLS

- **Programming Languages** : Python , C++ , Java , SQL , JavaScript , Typescript , HTML , CSS, Dart
- **Cloud/DevOps** : AWS, Azure, GCP, Docker, Kubernetes, Prometheus, Grafana, Jenkins, Spark
- **Data Systems** : Kafka , PostgreSQL , MongoDB , Redis , Chroma DB , Spark, ElasticSearch, Firestore, Snowflake
- **Frameworks** : Spring Boot, FastAPI, Flask, Streamlit, .NET, Node JS, Flutter, React JS, Hibernate
- **Tools / OS** : Git , Jira , Slack, Sonar , Kibana , LINUX/UNIX, Ansible, Terraform, ETL, EMR
- **Relevant Coursework** : Object-Oriented design (OOPs) , Data Structures & Algorithms , Databases (DBMS) , Cyber Security, Computer Networks, Web Development, Data Intensive Computing.

WORK EXPERIENCE

Senior Software Engineer | Optum, UHG | Bengaluru, IN **Jan 2023 – July 2024**

- **Pipeline Automation** : Spearheaded an innovative **automated framework** leveraging AWS Lambda, integrated with SQS & SNS to automate processes, slashing **manual intervention by over 70%** and accelerating pipeline execution by 50%.
- **ETL Performance Optimization** : Engineered an **indexing strategy** for Parquet file queries, **reducing latency by 60%** and boosting ETL **throughput by 45%**.
- **Data Consolidation** : Designed a high-performance, **distributed data pipeline** to aggregate **130M+ records**, leveraging advanced ETL, **real-time analytics**, and accelerated data modeling to drive faster, data-driven decisions.
- **Cost Efficient**: Revolutionized cluster management by deploying a **serverless EMR** solution replacing manual provisioning with elastic scaling, **cutting costs by 40%** and boosting operational agility.

Software Engineer | Optum, UHG | Bengaluru, IN **Aug 2020 – Dec 2022**

- **Growth & Retention** : Architected a **Snowflake based data platform** to boost tenant onboarding by 80% and **retention to 90%**, driving **revenue growth** through seamless integrations and data-driven insights.
- **Cost Intelligence Predictive Analytics**: Designed a real-time cost estimation dashboard leveraging ETL pipelines, **data warehousing**, and **OLAP** processing, reducing cost variability and enhancing financial forecasting accuracy by 90%.
- **Leadership & Cross-Functional Collaboration** : Conducted code/design reviews to **uphold quality standards**. Resolved 100+ critical customer escalations via root-cause analysis. Mentored 4+ new hires on tools and workflows. Owned **end-to-end delivery** of customer requested software enhancements, fostering teamwork across various teams.
- **Rostering Application** : Implemented a **Spring Boot** rostering application with **SOLID** design, achieving 99.9% peak traffic uptime, enhanced query performance ~ 40% through indexing, and rigorous load testing with JMeter and JProfiler.

Software Developer Intern | Shadowfax Technologies | Bengaluru, IN **Jan 2020 – Aug 2020**

- **Scalable Bulk Upload**: Deployed an asynchronous **bulk upload system** with Celery, cutting CSV processing time by 60% while preventing web freezes. Optimized concurrency for seamless handling of 10GB+ files.
- **Process Automation** : Built a **Python** log analyzer (30% faster error detection) that improved error detection speed by 30%, identifying issues missed by Sonar and enhancing debugging efficiency.

PROJECTS

InsightQuery [\[Link\]](#) **Jan 2025**

- Developed an **LLM-first analytics tool** using LLaMA and Streamlit that auto-generates **context-aware visualizations** and data narratives via intent-aware prompts, using **vector embeddings** reducing **analysis time by 70%** and achieving 4.8/5 usability from 50+ users.

Forecaster [\[Link\]](#) **Nov 2024**

- AI-driven time-series platform with causal-temporal modeling and **adaptive recommendation engines** predicts restaurant SKU demand (weather/order patterns), cutting **stock outs by 50%** and **waste by 40%** while enabling hyper-personalized interactive menus.

RagBot [\[Link\]](#) **Oct 2024**

- RAG-Powered Discord Bot: Instantly converts club discussions/announcements into AI-curated knowledge, **slashing response times 80%** and enabling scalable, real-time **community insights** through collaborative ‘learn-as-you-build’.

ACHIEVEMENTS & AWARDS

- **Publication** : Published a paper on Bike Count Sharing Prediction Using Machine Learning in Ijaresm. [\[Publication Link\]](#)
- **Excellence Award** : Won a performance excellence award for Top Performer of the quarter worth \$500.
- **Certified Snowflake Administrator** : Gained in-depth exploration of database admin duties and responsibilities in SF.