Maulik Beladiya

📞 647-937-6483 ✉️ maulikbeladiya@gmail.com 🔗 linkedin.com/in/maulikbeladiya ⬛ github.com/maulikb

Greater Sudbury, Ontario, Canada

Professional Summary

Software Development Engineer with 3+ years of experience building scalable, distributed systems and data solutions. Proven expertise in **Java, C++, Python**, and cloud infrastructure with hands-on experience in **large distributed computing environments**. Demonstrated ability to **design and implement innovative technologies**, reduce database complexity by 20%, and improve system performance by 15%. Strong foundation in **object-oriented design, data structures, and algorithm design** with experience building **fault-tolerant, scalable systems** for millions of users. HackerRank 5 in SQL with expertise in **distributed storage, indexing, and query systems**.

Education

Laurentian University   **July 2024**
Master of Science in Computational Science   *Sudbury, ON*
- Focused on **distributed systems, machine learning algorithms, and performance engineering**
- Developed expertise in **data structures, algorithm design, and complexity analysis**
- Advanced coursework in **parallel computing, optimization, and scalable system design**

Birla Vishvakarma Mahavidyalaya   **2021**
Bachelor of Engineering in Web/Multimedia Management   *Gujarat, India*

Experience

WeeTech Solution Pvt Ltd   **Jan 2021 − Mar 2023**
Software Development Engineer   *Gujarat, India*
- Designed and built **distributed, high-performance data processing systems** serving 500+ concurrent users using **PostgreSQL and Amazon RDS**
- Implemented **scalable, fault-tolerant storage and query systems** that reduced database complexity by 20% and improved query performance by 15%
- Built **real-time analytics dashboard** using **distributed computing environment** with Power BI, processing large datasets at incredible scale and speed
- Deployed and monitored new features in **highly available and fault tolerant systems** running in the cloud using **CI/CD pipelines**
- Collaborated with cross-disciplinary teams to **conceive, design, and bring innovative products** to market in **agile environment**
- Reduced deployment failures by 5% through **automated testing and monitoring** in distributed systems

Upwork   **Sep 2024 − Present**
Freelance AI Trainer & Software Engineer   *Remote*
- Design and implement **state-of-the-art distributed algorithms** for AI training pipelines
- Build **scalable data processing solutions** for machine learning workflows using cloud infrastructure

Projects

Distributed Reddit ETL Data Pipeline | *Python, Apache Airflow, AWS S3, Docker, PostgreSQL*   **2024**
- Built **end-to-end distributed ETL pipeline** processing Reddit data with **scalable, fault-tolerant architecture**
- Designed **distributed storage and indexing system** using AWS S3 and PostgreSQL for **large-scale data processing**
- Implemented **automated workflow orchestration** using Apache Airflow in containerized environment
- Created **robust data processing algorithms** handling high-volume streaming data with error handling and recovery

Serverless Expense Sharing Platform | *Node.js, NestJS, Firebase, TypeScript, WebSocket*   **2024**
- Architected **highly scalable, distributed backend system** supporting real-time expense sharing for multiple users
- Implemented **complex algorithmic solutions** for debt optimization and balance calculation across distributed user base
- Built **fault-tolerant, low-cost microservices architecture** using Firebase with automatic scaling capabilities
- Designed **real-time notification system** with WebSocket integration for instant updates across distributed clients

Trajectory Prediction Using LSTM | *Python, TensorFlow, LSTM, NumPy, Machine Learning*   **2024**
- Developed **state-of-the-art machine learning algorithms** for trajectory prediction using deep neural networks

- Implemented **complex data processing pipelines** for sequential data analysis and temporal pattern recognition
- Built **scalable training infrastructure** for large-scale model training with performance optimization
- Created **efficient algorithms for sequence prediction** with configurable architecture supporting multiple use cases

Model Context Protocol SQL Server | *Python, SQLite, MCP, Database Systems* **2024**
- Built **distributed database interaction system** implementing Model Context Protocol for scalable data access
- Designed **efficient query processing engine** with support for multiple database operations and schema management
- Implemented **robust data transformation algorithms** for CSV to database conversion with error handling
- Created **secure, manageable database interface** with comprehensive CRUD operations and connection management

Technical Skills

Programming Languages: Java, C++, Python, JavaScript, TypeScript, SQL, C#
Distributed Systems & Cloud: AWS (S3, RDS, Glue, Athena), Azure, Docker, Kubernetes, Apache Airflow
Databases & Storage: PostgreSQL, MySQL, MongoDB, SQLite, Redis, Firebase Firestore, Amazon RDS
Data & Performance Engineering: ETL/ELT Pipelines, Data Modeling, Stream Processing, Query Optimization
Frameworks & Tools: NestJS, Node.js, React, TensorFlow, Apache Kafka, WebSocket, RESTful APIs
Software Engineering: Object-Oriented Design, Data Structures, Algorithm Design, Distributed Systems, CI/CD
Development Practices: Agile, Test-Driven Development, Code Review, Performance Engineering, System Design

Certifications & Achievements

HackerRank 5 in SQL | AWS Certified Developer - Associate | Databricks Certified Data Engineer Associate | AI Agents Fundamentals Certified