Likhith Manjunatha

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EXPERIENCE

Mercedes-Benz Research and Development India
Bengaluru, India
Software Engineer Apprentice — *August 2026 – Present*

- **Design** backend batch processing pipelines utilizing 104 declarative sharing rules and 280+ market-scoped public groups, syncing GEMS data-access entitlements via Database.Batchable retrofit jobs to enforce strict cross-border data governance.
- **Deploy** multilingual service and sales workflows via 2 Agentforce agents across 20 languages, enforcing criteria-based record isolation across 19+ markets through programmatic AOR/VDZ sharing logic.

EXO Drones
Dubai, UAE (Remote)
Software Development Engineer — *March 2026 – August 2026*

- **Design and run** automated tests using BehaviorTree.CPP and NVIDIA Isaac Sim, catching 40+ hardware-in-the-loop regressions to eliminate 85% of manual pre-flight tests for autonomous UAVs.
- **Implement and optimize** machine learning models by compiling INT8-quantized YOLOv8 architectures with TensorRT, achieving 30+ FPS real-time target inference on edge compute platforms.
- **Develop** low-latency C++ middleware via uXRCE-DDS and ROS 2, converting Cartesian odometry to synthetic GNSS telemetry with sub-5ms latency to ensure reliable navigation in GPS-denied environments.

IEEE DataPort
New Jersey (Remote)
Data Infrastructure Engineer — *June 2025 – May 2026*

- **Design and deploy** distributed systems for data infrastructure using PySpark, automating ETL pipelines across 2+ petabytes of scientific datasets to guarantee 99.9% processing uptime.
- **Identify and resolve** performance bottlenecks in data quality and verification workflows, eliminating ingestion delays across 50+ research repositories to reduce manual cataloging overhead by 80%.
- **Write clean, well-tested, and maintainable code** for data ingestion frameworks, increasing processing throughput by 4x to establish robust data pipelines for future LLM applications.

Nas Company (June & Nas Daily)
New York (Remote)/ Dubai
Backend Engineer & AI Engineer Intern — *July 2025 – October 2025*

- **Identify and resolve** performance bottlenecks in distributed microservices using FastAPI and PostgreSQL, slashing query latency by 65% to sustain sub-200ms APIs for 1,000+ daily active users.
- **Instrument** systems with logging, monitoring, and alerting frameworks, predicting cloud failures with 95% accuracy to reduce operational computing expenses by 30%.
- **Implement and optimize** machine learning models for asynchronous pipelines serving GPT-4 and computer vision, securely ingesting 1,000+ high-resolution payloads daily to boost matching accuracy by 40%.

DATA ENGINEERING & DISTRIBUTED SYSTEMS

AYVID, AI Quantitative Platform
Bengaluru, India
Founder, Lead Systems Engineer — *April 2026 – Present*

- **Design and develop** distributed systems for autonomous algorithmic trading pipelines, processing 12,000+ live graph relationships to actively manage 300+ instruments across 30 global exchanges.
- **Identify and resolve** performance bottlenecks in multi-asset execution routing, achieving <100ms deterministic Tier-1 latency and sub-millisecond C++ kill-switch response times to minimize realistic slippage.
- **Write clean, well-tested, and maintainable code** for quantitative backend infrastructure, validating strategies against 20 historical shocks (2018–2025) and ensuring continuous 24/5 operational uptime.

High-Performance Distributed Computing for Health Data
B.M.S. College of Engineering
Student Researcher — *Jan 2025 – Dec 2025*

- **Trained distributed hybrid deep learning models** on the Ohio Supercomputer cluster to classify Alzheimer's, Frontotemporal Dementia, and healthy subjects via EEG data, setting 94.44% baseline accuracy while accelerating multi-node training throughput by 3.2x.

TECHNICAL SKILLS

- **Languages & Storage:** C++, Python, Java, C, JavaScript, SQL, PostgreSQL, Redis, Apex
- **Distributed Systems & Backend:** Microservices, RESTful APIs, High-Performance Computing (HPC), PySpark, FastAPI, ROS 2, Kafka
- **Infrastructure & Cloud Operations:** Google Cloud Platform (GCP), AWS, Docker, Kubernetes, CI/CD, GitHub Actions, Linux/Unix
- **Core Competencies:** Large-Scale System Design, Data Structures & Algorithms, Object-Oriented Design (OOD), Low-Latency Optimization, Automated Testing

EDUCATION

B.M.S. College of Engineering
Bengaluru, Karnataka, India
Bachelor of Engineering, Computer Science & Engineering, CGPA: 9.38/10 — *Nov 2022 – May 2026*