

ARAVINDA KASHYAP

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SUMMARY

- Software Engineer and Data Engineer (2 yrs, Shell) building large-scale ETL and streaming pipelines (1.5B+ rows) across AWS/Azure. Experienced in distributed data systems, orchestration, CI/CD, and backend APIs. Passionate about scalable infrastructure, data modeling, and reliability.

EDUCATION

Virginia Tech - Blacksburg, VA	M.S. in Computer Science	August 2025 – May 2027
• Coursework: Advanced Machine Learning, Advanced Database Management Systems		
Siddaganga Institute of Technology - Bangalore, India	B.E. in Information Science & Eng	August 2019 – July 2023
• CGPA: 3.8/4		

WORK EXPERIENCE

Shell plc (Global Oil and Energy Company)	Associate Software Engineer	August 2023 – August 2025
• Implemented distributed ETL & streaming pipelines processing 1.5B+ reservoir data rows using Python, SQL, Azure Data Factory, and Databricks, reducing data availability from days to minutes for upstream analytics.		
• Built a reusable data-ingestion framework (schema validation, plug-in connectors, retries) that cut new integration setup from 12 weeks to 5 days , saving \$1.5M OPEX annually and standardizing CI/CD with GitHub Actions.		
• Launched a microservice for rideshare matching (Node/Express, Postgres, Redis cache, WebSocket updates) with rollbacks and feature flags, reducing corporate travel reimbursement costs by 30% and earning Shell-VP recognition .		
ISRO - Indian Space Research Organization	Software Development Intern	April 2023 – June 2023
• Deployed a React and Node.js telemetry dashboard that ingested ground-station feeds via WebSockets and implemented a parse-validate-persist pipeline, and reduced latency from 3s to 0.8s (73 percent improvement) through batching and payload optimization.		
• Built a bidirectional control channel (authN, replay protection, backpressure) enabling sub-second uplink/downlink and horizontal scale.		

PROJECTS

Entantra – Geolocation-based Ad Platform Node.js, Next.js, Postgres, Redis	https://entantra.in
• Engineered a geo-distributed ad delivery platform deployed across 50+ embedded devices ; built scheduler and content-sync APIs in Node.js/Next.js with GPS-driven targeting and offline caching for high reliability.	
• Optimized on-device algorithms for queueing and playback to achieve 99.9% uptime and cut median ad-latency by 70% under intermittent networks; scaled admin panel to manage 100+ campaigns and 20+ partners.	
DevInfra OpsHub - GitOps Control Panel TypeScript, React, Node.js, Docker, CI/CD	GitHub Repository
• Automated per-PR preview deployments with GitHub webhooks and Netlify APIs, cutting environment setup time by 50%+ ; built encrypted env-var storage with Postgres (rotation, audit logs) and integrated health checks, tracing, and Slack alerts for deploys.	
• Dockerized the full stack and implemented CI/CD with k6 load testing, sustaining 99.9% uptime under 400 concurrent users and keeping P95 preview creation below 10 s.	
Careflow AI Python, LangGraph, FastAPI, OCR, LLM APIs	careflow-ai.netlify.app
• Built an AI agent for healthcare operations using OCR and LLM-driven ICD-10/CPT-4 code suggestions, and orchestrated workflows with LangGraph for fuzzy code matching, confidence scoring, and automated CMS-1500 claim generation , significantly improving claims accuracy and reducing manual processing effort.	
MediSync – IoT & ML Medication Adherence Python, PyTorch, ESP32, MQTT	Research Paper Link
• Achieved 97% real-time accuracy , research published in the IEEE International Conference CSITSS 2023 proceedings .	
• Developed a medication-tracking system with image recognition and sensors to identify pills, monitor intake, and deliver low-latency alerts for missed doses and refills.	

SKILLS

Languages: Python, TypeScript/JavaScript, SQL, C++ , Bash	Data & Messaging: PostgreSQL, MySQL, MS SQL, Redis, Kafka
Frameworks: Node.js (Express/Fastify), React, REST	Testing & Observability: PyTest, Monitoring
Data Engineering: Azure Data Factory, Databricks, ETL Pipelines, Airflow (basic)	Concepts: Distributed Systems, Data Modeling, Caching, Stream Processing, Reliability
Cloud & DevOps: AWS (EC2/S3), Azure, Docker, GitHub Actions, CI/CD, Linux	Certificates: Microsoft AZ-900 (Azure Fundamentals), Green Software Practitioner

HONORS AND AWARDS

- Certificate of Recognition from **Shell VP - HR** for leading company-wide DEI initiatives through Young Shell India.
- Star employee of the month at Shell (x2)
- Highest SGPA (9.52/10) & **Best Mini-Project 2022** (“Medication Adherence IoT Solution”) – Siddaganga Institute of Technology.

LEADERSHIP AND ACTIVITIES

Student Chair, **IEEE Student Branch** - organised technical talks and networking events, boosting club participation by 15%.

President, **DeCoders Programming Club** - Led 40-member team delivering hackathons, workshops, and mentorship reaching 300+ students.