

Devesh Kumar

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PROFESSIONAL SUMMARY

Software Engineer II at Microsoft with 4+ years building cloud-native platforms on Azure. Specializes in IoT data pipelines, knowledge graphs, and AI/LLM-powered copilots. Proven track record shipping production-grade microservices and systems -from IaC and security hardening to RAG-based agents and React front ends.

EDUCATION

B.Tech + M.Tech (Dual Degree)

IIT Bombay -Electrical Engineering

2016 -2021

CGPA: 8.49 / 10

Minor -Computer Science

IIT Bombay

2017 -2021

TECHNICAL SKILLS

Languages

C# Python TypeScript SQL
KQL Bicep C++

Azure Platform

Azure OpenAI Azure Data Explorer
Azure Functions Cosmos DB
Event Hub Redis Kubernetes (AKS)

Frameworks & Tools

.NET / dotnet 8 React Fluent UI
Docker Kafka Playwright

Practices

IaC (Bicep) Managed Identity
VNet / Private Endpoints RAG
Threat Modeling

NOTABLE ACHIEVEMENTS

- ▶ Top 1% among 200,000+ aspirants in JEE Advanced 2016
- ▶ 99.1 percentile in JEE Mains 2016
- ▶ Qualified National Talent Search Exam (NTSE)

EXPERIENCE

Microsoft India

Hyderabad, India

Software Engineer II | Jul 2021 -Present

Manufacturing Data Platform and Knowledge Graph

Jul 2021 -Oct 2023

- Redesigned IoT data ingestion pipeline by eliminating Azure Digital Twin -**cut node ingestion time 39% (18 -11 min)** and **relationship ingestion 54% (39 to 18 min)** for 330k nodes / 450k relationships.
- Designed multi-hop graph query APIs and time-series historization on **Azure Data Explorer**, enabling root-cause analysis across manufacturing knowledge graph with configurable hops and path filters.
- Secured entire infrastructure via **virtual networks, private endpoints, and managed identity** across all Azure services (Cosmos DB, ADX, Redis, Storage) -eliminated all List Keys API usage.
- Developed Bicep IaC templates facilitating **one-click deployments**, slashing customer infrastructure provisioning time by 6 hours and elevating deployment success rate to 98% across all Azure services.
- Removed **1,152 code warnings**, enforced a 70% L0 test-coverage gate in CI, and standardised HTTP exception handling -measurably reducing production null errors and improving codebase health.

AI Copilot and Manufacturing Agent

Nov 2023 -May 2025

- Integrated Copilot V3 pipeline with RAG-based instruction/example retrieval, automatic KQL-to-Cypher conversion, and column typecast injection on generated queries -**lifted end-to-end query accuracy from 40% to 75%+**.
- **First team across MCI** to ship Azure OpenAI Assistant API in production; spearheaded a data-filtering layer, conversation threading, and file-search capability -demonstrated live at **HMI 2025 (Rolls Royce demo)** with accuracy exceeding 75% on customer datasets.
- Vectorised entity and schema metadata in real-time via a dedicated Event Hub + Redis pipeline using Azure OpenAI through Managed Identity -**fully decoupled from main ingestion** to prevent any throughput degradation.
- Supported Parsec and Rolls Royce customer POCs end-to-end; **certified MCI Threat Model reviewer** -conducted security architecture review for the Industry AI team's DTT/DMF product.

Power Automate Process Mining

May 2025 -Present

- Implemented the OCPM (Object-Centric Process Mining) overview page from ground up, an edge-filter panel with infinite scroll, and five analytics widgets (bar, pie, line, KPI, activity card) in **React, Fluent UI, and TypeScript**; showcased at PPCC 2025.
- Made each analytics widget fully configurable -customers can remap the underlying metric each widget represents, unlocking **20-30** distinct configuration combinations per widget without code changes.
- Authored comprehensive **Playwright end-to-end test suites** covering the OCPM overview, all widgets, and filter panels -significantly cutting manual QA regression effort across the process mining platform.

Chicago Mercantile Exchange (CME) Group

Bangalore, India

Intern -Quant Research Team | May 2019 -Jul 2019

- Applied **Principal Component Analysis** to isolate dominant interest rate curve movements and stress-tested margin risk models against extreme historical market scenarios.
- Built an R tool to compute and report margin offsets at the currency level across all trading accounts.