KUMAR CHANDRACHOODA

Agentic AI, Data & Cloud Engineer | Multi agent systems, RAG and MCP on AWS | Python & C# | AWS Certified ML Engineer
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Right to work: UK Skilled Worker visa valid until 11 February 2027, I would need a certificate of sponsorship in future.

SUMMARY

I build modular AI, data and cloud systems that other teams and other agents can rely on. Over eight years I have moved from .NET microservices on Azure to leading AWS cloud, data and agentic AI engineering at PebblePad, where I was lead architect and tech lead for the analytical data product, a six month timeframe to turn 100 TB+ of legacy data into an AWS native, AI first analytics offering under UK GDPR.

I was lead developer of the Tutor Workspace Creator, a chat interface on Amazon Bedrock through which tutors set up student assignments from PebblePad's own pedagogy and authoritative sources, with a research crew to match employability, an LLM judge against a curated outcome and the tutor's confirmation before anything is created. A workspace now takes minutes to create and 50 users are on it.

I am on the core lead team that created the developer portal for our autonomous agent runs, currently used by 5 architects, 8 developers and 4 QAs. Its spec driven workflows that extend Claude Code's task breakdown, a triaging agent and integrated MCP servers delivered the data platform services 3-5x faster than the team's previous delivery process. I coordinate technical work, resources and teams across the business and keep non technical stakeholders accurately informed.

EXPERIENCE

Senior Software Engineer, PebblePad Sep 2023 - Nov 2026

- Led agentic development with agent tools and skills that carry the platform's infrastructure guidelines and deployment process, and multi agent workflows from specification through planning, development and testing, delivering data services 3-5x faster than the team's previous hand built delivery. Achieved AWS Certified Machine Learning Engineer - Associate.
- Architected the analytical data product on the medallion architecture (Kinesis ingestion, AWS Glue (Spark) ETL, Amazon S3 Tables on Apache Iceberg, Lake Formation row level tenant isolation, all modularised in AWS CDK) as lead architect and tech lead. The brief was six months to turn 100 TB+ of legacy data (RDS PostgreSQL and self hosted MongoDB) into an AWS native, AI first analytics offering under UK GDPR. Recent records serve from an Amazon Redshift gold layer, and anything older than a year is archived to S3 Tables to keep query costs down.
- I took it through Head of Platform and InfoSec approval and also trained two senior and three junior developers within the team on Agentic AI.
- Created the security first, zero trust API framework every new AWS web service starts from, with Amazon Cognito and PKCE, Lambda and JWT authorizers, WAF, KMS, ACM, Route 53, CloudTrail, GuardDuty and Security Hub monitoring over API Gateway backed by Lambda & ECS and EFS, S3, SQS, IAM, SSM and Secrets Manager modules. New service setup fell from 3 weeks to 2 days. Achieved AWS Certified Solutions Architect - Associate during the move from Azure to AWS.
- Lead implementation engineer for the CI/CD and plug and deploy Infrastructure as Code modules now used by nearly 20 services. Set the build and deploy standards and governed infrastructure under central human approval.
- Delivered the platform's GDPR controls. Tombstoning lets a person be forgotten without losing audit trails, data is masked as it is removed, and a storage limitation job on ECS Fargate removes data past its retention limit across every subsystem, an event driven compliance tool with Lambda checks and EventBridge transport.
- Introduced Valkey as the platform's distributed, multi layer, content aware cache so it scales horizontally, and standardised caching across services.

Senior Product and Platform Engineer, Accenture Jul 2021 - Aug 2022

- Architected and built microservice platforms on Azure with their data pipelines and stores, delivered through a reusable Terraform library (App Service, Functions, APIM, AKS, Cosmos DB, Event Hubs, Front Door, SQL Managed Instance) scaled to a hub and spoke model across regions and environments, with CI/CD on Azure DevOps. Achieved Azure Solutions Architect Expert and DevOps Engineer Expert here.

Senior Software Engineer, Imaginea Technologies (now part of Accenture) Dec 2017 - Jun 2021

- Modernised legacy monoliths into .NET Core microservices (APIs, data models, integrations, analytics and reporting) and mentored 11 engineers and 5 apprentices, earning MCSA Web Applications and MCSD App Builder along the way. Ranked in the top 5% of Imaginea's developers by my reporting manager, with client work that led to new business wins.

Programmer Analyst Trainee, Cognizant Feb 2017 - Nov 2017

- Built ASP.NET Web Forms and MVC applications and proofs of concept, and earned the Microsoft Technology Associate (MTA).

AGENTIC AI PROJECTS

Tutor Workspace Creator (PebblePad, Lead Developer) A chat interface where a tutor sets up an assignment workspace for students on any degree, answered only from PebblePad's own pedagogy resources and the authoritative sources we control. A crew of agents researches the brief, an LLM judge evaluates the candidates against a PebblePad curated set, and the tutor confirms the shape of the assignment and what it tests before anything is created. Prompt templates are hardened against prompt injection. A workspace is up in minutes instead of waiting on a centralised repository, and 50 users are on it today.
Stack: Amazon Bedrock (OpenAI gpt-oss), CrewAI and BeeAI agent crews, LLM as judge evaluation, prompt templates, human in the loop confirmation, hosted on AWS

Developer Portal and agentic delivery (PebblePad, core lead team) An internal developer portal on AWS for autonomous agents specialised in API security, data analytics and infrastructure spin up. The agents use approved resources where they exist and otherwise create infrastructure modules to AWS best practice with zero trust for me to review and add to the pattern repository. A curated tool set carries the modules, and MCP servers let each developer push knowledge into a central second brain under AI evaluation and then human oversight. Workflows extend Claude Code's task breakdown. A bespoke triaging agent reads each developer's skills persona and distributes work through Azure DevOps, larger items to people and smaller ones to agents that raise pull requests for human review, and a daily summary goes to Teams. Used by 5 architects, 8 developers and 4 QAs.
Stack: Claude Code, agent tools and skills, MCP servers, bespoke triaging agent, AutoGen, Azure DevOps, Microsoft Teams, LLM evaluation with human oversight, hand built agent loops on Python, AWS Strands Agents, LangGraph and Amazon Bedrock, RAG

EDUCATION

- MSc Advanced Computer Science (Cloud Computing), University of Leeds, Sep 2022 - Sep 2023, with Distinction
- B. Tech Computer Science Engineering, JSS Academy of Technical Education, 2016

CERTIFICATIONS

- AWS Certified Machine Learning Engineer - Associate, AWS Certified Data Engineer - Associate, AWS Certified Solutions Architect - Associate
- Microsoft Certified: Azure Solutions Architect Expert, DevOps Engineer Expert and Azure Developer Associate. MCSA Web Applications. MCSD App Builder (Programming in C#, Querying Data with T-SQL)

SKILLS

- **Agentic AI:** multi agent systems and crews, agent orchestration, CrewAI, BeeAI, AutoGen, AWS Strands Agents, LangChain, LangGraph, Amazon Bedrock (OpenAI gpt-oss, Bedrock AgentCore), hand built agent workflows, triaging agents, agent memory, custom tool integration, Model Context Protocol (MCP) servers
- **LLM engineering & AI delivery:** prompt engineering and prompt templates hardened against prompt injection, context engineering, spec driven development, retrieval augmented generation (RAG) systems, vector search, LLM evaluation (LLM as judge against curated sets), guardrails, human in the loop confirmation and review, Claude Code, Azure DevOps and Microsoft Teams integrations
- **AWS:** Lambda, ECS Fargate, API Gateway, SQS, EventBridge, Glue, Kinesis, Lake Formation, S3, S3 Tables, RDS, DynamoDB, Cognito, IAM, KMS, WAF, SSM, Secrets Manager, Bedrock, SageMaker, CloudFront
- **Data & ML:** ETL, data modelling, medallion lakehouse, Apache Iceberg, Spark (PySpark), Amazon SageMaker, PostgreSQL, SQL Server, MongoDB, OpenSearch, ClickHouse
- **Infrastructure:** AWS CDK, Terraform (Azure), reusable IaC modules, CI/CD on Azure DevOps, GitHub, Docker, AKS
- **Security & compliance:** zero trust, OAuth 2.0 with PKCE, secure by default cloud native solutions, multi tenant isolation, Lake Formation data controls, GDPR (right to erasure, tombstoning, data masking, audit trails, retention) , ISO 27001 and SOC 2 compliance
- **Architecture:** modular monolith, microservices, event driven, serverless and cloud native, high availability and fault resilience, distributed caching (Valkey), OpenTelemetry observability
- **Languages & frameworks:** C#, Python, TypeScript, SQL and PowerShell. .NET 10, ASP.NET Core, EF Core, GraphQL, React and Angular















