Contact Information

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Al Assistant: Click here to chat

Location: London, UK Nationality: British

Summary

Experienced hands-on Architect offering strategic solutions and capability development. With experience, expertise, and a deep understanding of the financial, government and startup sectors. My main objective has always been to deliver real solutions that achieve impactful results.

Skills

- Data, ML, AI, Cloud, IoT, Blockchain, Security & Solution, HLD & LLD Architecture
- Strategy, Stakeholder Management, Agile Methodologies, Workshops & Mentoring
- Event & Domain driven design, REST/GraphQL APIs Applications, Chatbots
- Data (ELT) & AI (MLFlow, NLP) Pipelines, Platforms, Governance & Quality
- Databases SQL, NOSQL, Graph & Vector
- IAM (Identity and Access Management), RBAC & ABAC
- Security Zero Trust, Encryption (In Motion, At Rest)
- Al Pipelines for Machine Learning with MLFlow
- GenAl Agents, Frameworks, Guardrails, Prompt Engineering & Finetuning LLMs
- DevSecFinOps IaC, PaaS, CI/CD, Monitoring (Observability & Control) Automation.

Professional Experience

Lead Cloud Solution Architect - Howden Group (08/2020 - 07/2023)

- Orchestrated the successful migration from on-premises and AWS environments to Azure, leading the modernisation of hundreds of applications. Transitioned from legacy systems to event-driven architectures, enhancing accessibility and curtailing operational costs.
- Revolutionised the insurance broker marketplace platform by transitioning from a traditional data warehouse to an advanced Lakehouse using Databricks, streamlining integration processes for mergers and acquisitions.
- Devised and implemented Sanctions & Anti-Money Laundering (AML) services within the Broker platform, ensuring compliance with evolving FCA regulations.

- Spearheaded the company's Identity and Access Management (IAM) strategy, migrating towards a Zero Trust Architecture and bolstering system security through comprehensive automation strategies.
- Hosted and led multiple AI workshops, establishing a culture of continuous learning and adaptation within the organisation.

Co-Founder – Sensational.Space (07/2023)

- Spearheaded the creation of Sensational. Space with the pivotal aim of applying artificial
 intelligence (AI) solutions to tangible, real-world contexts, with a keen focus on
 maximising the potential of compact Internet of Things (IoT) devices at the edge.
- Transformed the capabilities of IoT devices from simple sensors and actuators to sophisticated units with edge intelligence, facilitating their seamless intercommunication via LoraWAN and satellite communications.
- Employed state-of-the-art AI and Blockchain technologies, particularly GenAI, to propel automation and cultivate a more nuanced interaction between humans and machines, pushing the boundaries of conventional IoT applications.

CCAI Architect - United Nations (08/2020 - 11/2020)

- Led the development of a pioneering CCAI (Contact Centre AI, Dialogflow) pilot for IT Support, markedly decreasing resolution times for United Nations members globally, irrespective of language differences.
- Devised a real-time metrics system integrated within the chatbot, delivering immediate data insights, thus facilitating informed decision-making and ongoing enhancement of the service.

Lead AI Architect - Capita PLC (08/2018 - 01/2020)

- Pioneered digital transformation by migrating approximately 20 Al companies within the group to a unified data platform in a multi-cloud environment, streamlining processes and fostering collaboration.
- Executed the implementation of MLFlow pipelines to modernise critical systems including Vetting, HR, and Payroll, enhancing efficiency and accuracy.
- Established an integrated platform using Databricks & Snowflake, enabling data scientists and platform engineers to collaborate effectively and innovate.
- Initiated comprehensive automation across Infrastructure, Data, and MLFlow pipelines, significantly reducing manual workload and minimising errors.
- Devised and rolled out an Identity and Access Management (IAM) strategy, bolstered platform auditing, and enhanced security measures through SIEM and SOC protocols.
- Steered the technology strategy for a newly established in-house consultancy, setting the direction for future innovation and growth.

Lead Enterprise Architect – Homeoffice UK Gov (03/2016 - 01/2018)

- Pioneered digital transformation by migrating approximately 20 AI companies within the group to a unified data platform in a multi-cloud environment, streamlining processes and fostering collaboration.
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Lead Solution Architect - Met Police (06/2014 - 10/2015)

- Developed and launched 'MetSearch', an innovative, Google-esque search mechanism for police data, achieving a 70% reduction in response times and vastly improving operational efficiency.
- Implemented a robust platform enabling quick and accurate identification of individuals, including those using aliases and online personas, significantly enhancing the Met's investigative capabilities.
- Orchestrated strategy and executed systems to combat financial crime effectively through 'ActionFraud', bolstering the Met's capacity to tackle sophisticated financial offences.

Solution Architect - RGARE (05/2010 - 06/2014)

- Conceived and constructed the Automated Underwriting Rules Engine (AURA), revolutionising the underwriting process through advanced automation.
- Pioneered an automated Electronic Health Records (EHR) Natural Language Processing (NLP) Platform, streamlining the actuarial audit process and enhancing data accuracy and accessibility.

Co-Founder /CTO- MBanki (2011 - 2015)

 Orchestrated the design and implementation of a PCI DSS-compliant mobile payment solution, introducing a comprehensive system that included POS integration, ATM access for cash withdrawals, and SWIFT network connectivity for global transactions.

Architect/Developer - BBC (12/2009 - 03/2010)

• Spearheaded the digitisation of the largest television archive, enabling real-time access and significantly enhancing content availability.

Architect/Developer - Deloitte (06/2009 - 12/2009)

• Engineered a sophisticated royalty platform for the Phonographic industry PPL, streamlining financial operations and ensuring accurate royalty distributions.

Developer - Dun & Bradstreet (10/2005 - 01/2009)

 Instrumental in the development of a comprehensive Company Due Diligence Platform, facilitating more informed business decisions through thorough analysis.

Solution Architect - RGARE (07/2004 - 06/2005)

• Pioneered the construction of the Automated Underwriting Rules Engine (AURA), revolutionising the underwriting process with increased efficiency and consistency.

Technology

Architecture: HLD, LLD, Agile, Enterprise, Solutions, Technical, Infrastructure, Data, ML/AI, GenAI, IAM, Security, Microservices, Docker, Kubernetes, API-Gateway, gRPC, Parquet, JSON, YAML, XML, Protobuf

IAM & Security : SSO, AUTH, RBAC, REST, ZeroTrust, Encryption, Azure AD B2C, IAM, PAM, RBAC/ABAC, Prompt Injection/Jail-Breaking, Security, Anomaly Detection, AI, Firewalls, Guardrails, OAuth, OIDC, SAML, JWT, HashiCorp,KeyVault,CyberArk,Threat-Modelling,PenetrationTesting

Cloud, DevSecOps: GCP, AWS, Azure, Render, Railway, Colab, Hybrid(IaaS, PaaS, SaaS, AlaaS, AKS, EKS, Cloud Run, GitHub, KeyVault, JFrog, CloudFormation, ADO, VPC, IaC(Terraform), CI/CD, FinOps, ELT, EL+T(Live Tables), Airflow, Airbyte, MLFlow, Observability & Control, AWS Lambda, Amazon S3, AWS CloudTrail, AWS Config, AWS CloudWatch, AWS Step Functions, Azure Functions, Azure Logic Apps, Azure Event Grid, Azure Monitor, Azure Active Directory,Google Cloud Functions,Google Cloud,Pub/Sub,Google Cloud,CDK,HA/DR,Monitoring, GoogleCloudIAM,Prometheus, Grafana, Splunk, Datadog, Ansible, Puppet, Chef, SaltStack Monitoring, GoogleCloudIAM, Data Curation & Governance: Kafka,EventHub, Event-Sourcing, CQRS, Zero Trust, Databricks, PySpark,AzureDatalake,BlobStorage,CloudStorage,BigQuery,CosmosDB,DBT,Great Expectations, Snowflake, Neo4j, VectorDB, Provenance, Lineage, DQ, Curation(Unity Catalog), Live Tables, Guardrails, GDPR, PCI DSS, Avro, Parquet, ORC, Apache NiFi, Apache Atlas, Apache Kafka, Apache Hadoop, Hive, HBase, Google Cloud Dataprep, AWS Glue,

CRM:Salesforce.Novidea.HubSpot

AWSDataPipeline,Datawarehouse,Lakehouse,MDM

AI-Models: GPT-4(OpenAI), Claude2(Anthropic), PALM2, Cohere, Llama2(Meta), etc.

Al Frameworks & Patterns: SOTA, DialogFlow, Langchain(Langflow, Flowise, Chainlit, LangSmith, LangForge, LangchainHub), LlamaIndex, VertexAl, Bedrock, Transformers (Huggingface), Functions Calling (OpenAl), Prompt Engineering, RAG, ReAct, MRKL, Agents, Chunking/Splitting, Embeddings, VectorDB, Chatbots IoT: RaspberryPI, ESP32, EdgeIntelligence, LoraWAN

Blockchain:Identity,Bitcoin,LightningNetwork,Web3,Ethereum,Solidity

API's, Programming & Frameworks: Python, PyTorch, Tensorflow, Java, JavaScript, Go, HTML, Node, React, Spark, REST, Functions, Kafka, EventHub's, Event Grid, Pub Sub, GraphQL, APIM, Apigee, Angular, Vue.js, Express.js, Spring, Spring Boot, .SOLID, WebAPI, NET, ASP.NET, Flask, Django, gRPC, Protocol MediatR, NoSQL(MongoDB, Couchbase, Cassandra), SQL(MySQL, PostgreSQL, SQL Server), Time-series(InfluxDB, TimescaleDB), Graph(ArangoDB, TigerGraph), BAIN, NewSQL(CockroachDB, Google Spanner), ElasticSearch, Logstash, Kibana (ELK Stack), Apache Solr, OpenTracing, OpenTelemetry Buffers, Thrift, Apache Avro, RabbitMQ, MQTT