

Alexander Adu-Sarkodie

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Experience

With 15+ years of experience and a career dedicated to advancing software engineering and technical leadership, I am excited to bring my expertise and strategic vision to a forward-thinking enterprise where innovation, scale, and engineering excellence drive transformative outcomes.

My background includes developing cutting-edge solutions across aerospace, defence, eCommerce, government digital services, banking, retail, energy and global events. **Repair Smart** is a predictive maintenance platform co-developed with BAE Systems and Airbus, which optimises aircraft servicing and reduces downtime. Additionally, my work on **StrikeNet**, a Digital Twin platform for the UK Ministry of Defence, demonstrates my ability to deliver complex, high-impact systems that enhance operational efficiency. These experiences align closely with the focus on innovation, reliability, and digital transformation. Alexander has line managed, mentored, and coached near- and offshore teams in the UK, Canada, Austria, Spain, India, the US, Argentina, Slovenia, Estonia, and Romania.

My duties includes Hands-on/Hands-off in Development, Architecture, Governance, Strategy and Facilitation, People Management, Capacity Planning, Mentoring, Coaching, Stakeholder Management, and also Initiatives for project planning, execution, code reviews, conducting metrics on test coverage, managing technical debt, timeframes for review and releases, developing engineering talent, hiring, OKR reporting, and overall quality optimisation and efficiency of the systems and solution design architecture.

My leadership in award-winning technical projects - including recognition among the **UK's Top 50 Influential Technologists** - has honed my ability to mentor high-performing teams, drive agile transformation, and align engineering outcomes with business goals.

As Head of Data Engineering for the **FIFA World Cup 2022** in Qatar, I led mission-critical platform architecture, ensuring scalability and resilience for a global audience. At **GDS/GCHQ**, I served as Lead Technical Architect, designing secure, large-scale systems for government digital services. Further, as Tech Lead at **Marks & Spencer**, I spearheaded their **Digital Transformation**, modernising legacy systems to enhance customer experiences. This led to my promotion as Software Development Manager for the business. My tenure at the **BBC** further solidified my expertise in **Scalable, Real-time Digital Platforms**. I specialise in **cloud-native architectures**, **AI/ML integration**, and **scalable data engineering** and **software solutions** - skills directly applicable to initiatives in customer experience, operational resilience, and next-gen technologies.

My specialisation extends to applied AI - designing, fine-tuning, and deploying LLMs, RAG architectures, and autonomous agent systems for enterprise impact. My focus spans three key areas: optimising RAG pipelines for precision retrieval, customising LLMs for domain-specific performance, and engineering scalable agent workflows that drive operational transformation. Across industries, I've implemented these solutions to automate complex processes, enhance decision-making, and deliver measurable efficiency gains - from intelligent customer service to enterprise knowledge management - exemplified in my extended **SPYDER** (<https://digital-twin-v2-chi.vercel.app/>) work, which followed **OFGEM's MHR** project.

As well as supporting businesses in technical areas, Alexander has driven strategy changes within operations, transformation and architectural governance.

Alexander also holds an MSc in Mechanical Engineering and served as an Automotive Production Systems Engineer at Ford Motors in Enfield, UK.

Portfolio: <https://github.com/DataSolutionSoftware/Portfolio>

GitHub: - <https://github.com/kukuu?tab=repositories>