

Curriculum Vitae

Alexander Adu-Sarkodie

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LinkedIn - www.linkedin.com/in/alexander-adu-sarkodie-063b4b4a

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

@London Tech Interview - https://www.linkedin.com/posts/alfiegeorgewhattam_londontech-londontechnology-techlondon-ugcPost-6694141986187833344-vaOF

Experience

As a result-oriented software engineer with over twenty years of industrial experience in digital transformation, product engineering and cloud computing technologies, Alexander has a background in computer systems engineering and data communications (MSc Telematics). He has line managed, mentored and coached near and offshore teams in the UK, Austria, Spain, India, the US, Argentina, Slovenia, Estonia and Romania. His duties include Development, Technical Leadership, Architecture, Strategic Direction, People Management, Capacity Planning, Mentoring, Coaching, Stakeholder Management and Hiring.

Strong proficiency in Computer Science spans areas of data structures, algorithms, system architecture, resiliency, redundancy, and architecting scalable systems, focusing on fault tolerance and high availability to ensure minimal downtime.

Closely working with customers and stakeholders as a hands-on Development Manager, Alexander is accountable for the technical delivery and quality of the output of a globally distributed AGILE cross-functional teams (UI, Cloud Engineering, Artificial Intelligence, Data Science, DevOps, Platform Integration and QA), code reviews, test coverage, technical debt and overall quality optimisation and efficiency of the systems and solution design architecture. He is also responsible for development initiatives for project planning, execution, timeframes for review and releases, and developing engineering talent.

Team sizes have ranged from ten to fifty-five.

Alexander has previous experience in Mechanical Engineering (MSc).

Projects

Aerospace, Maritime, Defence, eCommerce, Public Services and Digital Broadcasting.

- StrikeNet - The StrikeNet Digital Twin project for the UK Ministry of Defence (MOD) and the Defence industry developed a cutting-edge Digital Twin platform that serves as the Technical Authority for military and defence operations. This digital twin integrates advanced data analytics, real-time simulation, and AI to create a virtual representation of defence assets, systems, and operations, allowing for enhanced decision-making, predictive maintenance, and operational efficiency. By leveraging this technology, the MOD can optimise asset management, improve system reliability, and strengthen mission readiness while minimising costs and risks in complex defence environments: <https://digital-twin-v2-chi.vercel.app/>
- Non-Conformance Management Tracking (Repair Smart) software for the Aerospace Industry, Europe - A data harvesting AI engine for Quick Search for solution design templates which are reusable and automatically generated from stored procedures and algorithms. The software is designed to accelerate and automate repairs, reduce search time and improve efficiency.
- Obsolescence Enterprise Management System for UK Defence Industry - The software offers a comprehensive database containing detailed information on building materials, and electronic components, including specifications, lifecycle status and compliance data.
- FIFA World Cup 2022 - The platform is a Frontend self-serve AWS SaaS interface providing functionality for customers to send notifications to multiple devices. and work with cloud platform and SDK to deliver our unique service.

- LOVE JOINT: <https://www.lovejoint.store/> A Nutraceutical for Lifestyle & Healthy Living.
- Task Manager (CRM). <https://www.youtube.com/watch?v=4OFE2tiXK7g&t=149s>
- GCHQ & NCSC platforms: <https://www.gchq.gov.uk/> | <https://www.ncsc.gov.uk/> - Both platform provides strategies and support in securing businesses and personal data and provisioning a secure communication network between the government and its citizens, including cyber-security alerts against espionage.
- Marks & Spencer eCommerce platform- <https://www.marksandspencer.com/> - Delivered the technical framework and initiative for the digital transformation of Marks and Spencer's e-commerce platform from a coupled monolithic to a scalable micro-service omnichannel platform while ensuring the continuation and enhancements of services.

Role:

- Managing globally distributed cross-functional Agile teams and leading SPRINT cadences.
- Technical Leadership, Architectural and Strategic Direction and Hands-on Development.
- Building functional POCs, Digital Twins for Simulation, Predictive Analysis and Forecasting using AI and Low Code strategies.
- Facilitating development and software configuration planning, code reviews, identifying, tracking, removing and escalating impediments
- Developing the Role Based Access Control (RBAC), Authentication, and Authorisation for systems integration.
- Building API Backbone for data harvesting and reconciliation for systems integration - Backend and Frontend.
- Ensuring that programmes of systems developments are implemented coherently and consistently, liaising with IS, ICT and client/user management to ensure that planned systems developments are compatible.
- Writing Acceptance Criteria and Definitions of Done for QA, Testing and Release.
- Engaged in Discovery Workshops with stakeholders to gather requirements and User Stories and provide Technical Architectural and Design directions and Best Practices.
- Tracking and reporting objectives and key results (OKR) progress.
- Accountable for the optimisation and operations of the CI/CD and DevOps Pipelines.
- Acting as a Subject Matter Expert (SME), representing the technology team in discussions with senior management, clients, and external partners to articulate the value and capabilities of the developed solutions.
- Conducting appraisals, Mentoring, Coaching and Hiring.
- Forecasting future resource requirements, working with appropriate stakeholders to agree on future resourcing strategies, and staying informed of industry trends, regulatory changes, and emerging technologies.

Business Impact:

- Architecture and commissioning new digital simulation environments for the defence industry working in the capacity as part of the Technical Authority.
- Applications upgrade from unsupported technologies to address limitations & security.
- Cloud migration from single VM-based architecture to modern PaaS approach.
- Building reusable component-based unified solutions for all business units.
- Scaled Agile delivery using onshore and nearshore teams for competitive costs, and shortened app deployment timescale by 50%. Refined Workflows. Digitising to reduce complexity, and replace error-prone legacy systems.
- Maintain regulatory compliance.
- Maximising productivity (Task Manager application) - <https://www.youtube.com/watch?v=4OFE2tiXK7g&t=149s> . The application transforms your workflow, regardless of your industry or field-based service. Keep track of tasks, simplify task management, and client relationships, and boost productivity from filtering tasks to client communication, invoice creation, and advanced settings.
- Hitting deadlines.

Career History

September 2023 - to date

Development Manager

EXPLEO Digital Engineering & Technology
80 Canon Street, London EC4N 0AN

Responsibilities:

- Shaping the technology strategy and vision, ensuring that solutions meet the highest standards of quality, security, and performance.
- Leading engineering efforts in developing cutting-edge solutions for Compliance and Third-Party Risk Management.
- Managing geographically distributed engineering teams responsible for the delivery of projects, product features and initiatives agreed by the commercial team.
- End-to-end development support and creating artefacts to support agile planning ceremonies and presenting a service roadmap at increment planning. Mentoring and Coaching.
- Supporting architecture, code reviews, and technical leadership in AI-based innovation and Digital Transformation projects. Ensuring Best Practices, Governance and Compliance.
- Managing agile cross-functional teams in a multi-supplier environment e.g. StrikeNet, working in rainbow teams to share knowledge and ideas for selecting potential solutions.
- Working with a broad range of stakeholders, such as supplier/developer teams, business stakeholders and end users and demonstrating experience interfacing across the whole value chain to obtain a full picture of the project requirements. Supporting bids.
- Translating customer outcomes into credible plans, and evolving those plans as required within an agile environment.
- Staying informed of industry trends, regulatory changes, and emerging technologies, to drive innovation and competitive advantage.

Technologies:

Synthetic Simulations Environments - Digital Twin, AI & NLP (OpenAI GPT-4, Co-Pilot, RASA- pen API for conversational platform), OOP, C#, PHP, NodeJS, JavaScript, Apache KAFKA, AWS Services, Visual Studio, AZURE Services, Google Cloud Platform, Service Management, Security Architecture, Design & Threat Modelling, Express, TypeScript, NextJS, Postgres SQL, REACT, REACT Testing Library, DevOpS, GraphQL, CMS, Postman, Version Control, HTML5, SENTRY, JIRA, TEAMS, Confluence, Cybersecurity, IoT, Voice Assistants, NL Interfaces, Quantum Computing, Blockchain, AR and VR.

June 2020 - September 2023

Head of Engineering

Pushologies Limited
Douglas, Isle of Man

Pushologies is a technology business using notification platforms to push media content and assets to personal mobile devices, to drive engagement, user experience and sales.

Head of Development FIFA+ World Cup 2022 notification SaaS platform which transmitted rich interactive media to millions of global audiences.

The platform is a Frontend self-serve AWS SaaS interface providing functionality for customers to send notifications to multiple devices. and work with our cloud platform and SDK to deliver our unique service.

Responsibilities:

- Architectural and strategic directions, technical leadership, end-to-end software development,
- Capacity planning, development initiatives for project execution, timeframes for review and releases, coaching and mentoring.
- Leading cross-functional Agile teams
- People's management
- Working closely with UX and Product Owners to define user journeys, internal and external stakeholders
- Working with clients and key stakeholders (FIFA, Coca-Cola, NBA, Hilton, FA, LPGA).
- Ensuring technical documentation is written and constantly reviewed to support development and training, onboarding new Engineers.
- Keeping abreast of new technologies and improving internal systems (Engineering Council Forums)
- Hiring

Technologies:

AWS Stack, NodeJS, Serverless, LAMBDA, PostgreSQL, TypeScript, REACT, REDUX, GraphQL, SENTRY, Sonar Cloud, Docker, TDD/CI/CD, InVision, Git/Bitbucket/GitFlow, JIRA, SLACK

Dec 2019 - May 2020

Chief Technological Officer

Bearings Point Media, London (Contract)
Kemp House, 160 City Road - London EC1V 2NX

Responsibilities:

Working as a hands-on CTO (Startup), my duties included:

- Accountable for end-to-end software delivery, managing the overall technical quality of the output of agile development teams, including functional, code quality, test coverage, technical debt and overall quality of the system design and solution architecture.
- Strategic engineering direction, capacity planning, technical leadership, timeframes for review and releases

Product - The ReadApp:

The app offers a reading Lounge for groups, where each Lounge provides content central to its interests and invites or accepts requests to access and pay for content in its community. Members pay to read and can chat and share comments in a discussion thread. The variety of lounges envisaged caters to different interests and provides a space for every reader to find an armchair they feel comfortable in. Other features includes a NEWS API, Dashboard, Blogs, Editorials and Notification updates.

Technologies:

NodeJS, JavaScript, REACT/REACT Native, REDUX, TypeScript/NextJS, PostgreSQL, Digital Ocean, GraphQL/Apollo/HASURA, Docker/Kubernetes, TDD/Git/GitHub/CI/CD/JIRA, SLACK, Sentry/STRIPE, SIGIL/InVision, Android/iOS.

September 2015 - November 2019: Contract

Principal Development Lead / Architect

Projects:

1. Digital Twin: <https://github.com/kukuu/digital-twin-scene> .
2. Task Manager: <https://www.youtube.com/watch?v=4OFE2tiXK7g&t=149s>
3. Love Joint: <https://www.lovejoint.store/>
4. GCHQ & NCSC platforms: <https://www.gchq.gov.uk/> | <https://www.ncsc.gov.uk/>
5. Flix Premiere (Entertainment) - <https://flixpremiere.com/>

Technologies

NodeJS, Express, OOP, JavaScript Frameworks, Isomorphic JavaScript, REACT, NEXTJS, REDUX, Storybook, GatsbyJS, GraphQL, Webpack, Web-services, REST, Websocket, APIs, PostMan, JWT, TDD, XP, BDD, CI/CD, Jest, Enzyme, Chai, Gulp, Docker/Kubernetes, Mobile First, HTML5, Style Components (CSS-in-JS), MySQL, MongoDB. Crafter (Headless CMS).

August 2012 – September 2015 :

Marks and Spencer

Software Engineering Development Manager

<https://www.marksandspencer.com/>

As a member of the Strategic Leadership Technical Team at Marks and Spencer's e-commerce platform, I helped with the digital transformation of its e-commerce platform and also established its first in-house high-performance Engineering and Academy teams to support the business working as Software Engineering Manager.

Responsibilities:

- Lead Developer iPad, omnichannel, Checkout and Loyalty schemes platforms
- Technical leadership across multiple Agile cross-functional teams. Hands-on development.
- Managing relationships across project teams within the business portfolios.
- Managing Performance of the Software Engineering team. Including offshore.
- Responsible for ensuring onboarding, Training & Development of the Software Engineering Team.
- Serving as Agile Coach, Advisor and continuously aligning team to business mission.
- Ensuring the provision of credible development platforms, Automated Testing, Quality Assurance, Build processes & Architecture, Tools for the teams and use of Best Practices in Agile/Waterfall development and Software Development Life Cycle (SDLC).
- Reporting on key delivery metrics including project progress and resource usage to business. Working with Platform and Release Management teams to ensure completion of process life cycle and delivery of product and engage with customer concerns.
- Working with offshore and third parties to supply development and content resources for M&S.com
- Career counselling managing expectations, 1-2-1, appraisals, mentoring and coaching Software Engineers.

Technologies, and Development Practices:

JavaScript, JavaScript OOP, AngularJS, NodeJS, GULP/GRUNT, Cordova, MySQL, WCS, AEM, XAMPP, BackboneJS, jQuery & jQuery Mobile, PHP, OOPHP (PHP5), BDD, TDD, HTML, HTML5, Bootstrap, Jenkins, GIT, CSS3, LESS, SASS, Responsive Design & Mobile Design, Lean Agile Development, Continuous Development, Continuous Integration.

January 2000 – July 2012

British Broadcasting Company (BBC) - White City H/Q, London
Senior Software Engineer

<https://www.bbc.co.uk/>

A member of the technical team that started digital broadcasting and transmissions on the Internet at the BBC. A pioneering revolution that changed the country. Alexander worked on the iPlayer as a Software Engineer then and was responsible for integrating the “Send to a Friend” module in 2007.

Projects:

News App - BBC Mobile Platform.

Learning – The National Curriculum, Great Britain: <http://www.bbc.co.uk/schoolradio/>

iPlayer – <http://www.bbc.co.uk/iplayer>

BBC News Interactive - Hull Centre , Broadband Interactive TV Platform.

JAN. 1999 - to date:

Visiting Lecturer – Business Computing - The City Literary Institute (<http://www.citylit.ac.uk/>).

Subject Area: Programming, Digital Transformation & Emerging Technologies

Qualifications:

- MSc Telematics (Computer Systems Engineering, Data Communications and Network Engineering.) - School of Electrical & Electronic Communications, Dept. of Computer Science, Middlesex University, London.
- MSc Engineering - Belarus State University, Minsk.
- Diploma Russian Language - Minsk, CIS
- Teacher Training Certificate (Adult Education) - UK. The City Lit Institute - London.

Membership Professional Bodies:

- Member British Computer Society (MBCS - UK)
- Member Institute of Learning (MifL - UK)
- Associate Member Institute of Engineers (AMIEng - UK)

Other - Bi-lingual, fluent in English, Russian and conversational French.