Personal Profile Qualifications & Contact Points

Qualifications

- ① MSc Strategic Information Systems, Cardiff University, 2008, Distinction
- ① BSc Hons. Astrophysics, Cardiff University, 1997
- ① Cambridge Spark Level 7 (Masters' degree equiv.) AI & Data Science Academy, 2022
- ① TOGAF9 Certified architect 2011
- ① PRINCE2 Practitioners Certificate, 2008
- ① ISEB Foundation Certificate in IT Service Management, 2003

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Professional Profile

Experienced leader (>25y) in healthcare enterprise architecture across digital, data & technology. A strong delivery focus and experience in building and leading technology teams and in leading healthcare digital & data strategy and architecture. Passionate about making information follow the patient wherever they are cared for, putting the right tools in the hands of health & care staff and using data to improve lives and services. Specialising in enterprise and national scale data, integration and interoperability in health & care.

Career Summary & Assignments Undertaken

Aug 2024 - present | Associate Consultant

Undertook a number of assignments, specialising in healthcare digital & data architecture. Delivering architecture roadmapping and discovery projects for clients:

① **Private healthcare services & solutions vendor | NHS integration discovery**

- Navigating the technical and compliance requirements for electronic prescribing integration with NHS
- Gap analysis and determining capabilities needed
- Estimating ROM costs and delivery timescales and producing the roadmap
- Next actions and identifying and progressing quick wins

① **St John & St Elizabeth Hospital | Architecture & digital booking discovery**

- Architecture cataloguing and mapping of existing IT estate, across technology, data & digital layers
- Mapping as-is data and integration architecture & data flows
- Identifying business drivers and pain points
- Roadmapping digital booking capabilities needed to support integration with PMIs & seamless self-pay booking
- Options assessment and recommendations

"Ian has a great technical knowledge and the ability to reframe complex information in manner which is tailored to supporting the enterprise meeting its business objectives." – Simon James, CEO

May 2021 - Aug 2024 | Digital Health & Care Wales | Assistant Director - Digital Architecture

Leading a team of solution and enterprise architects (20 WTE) to define a national digital architecture for health and care in Wales, including defining strategies, business cases, architecture roadmaps and solution designs and establishing architecture governance and design assurance through the Technical Design Authority.

Key achievements:

ⓘ Established road-mapping and enterprise architecture practice including an architecture risk review and production of key product and platform roadmaps including for integration hub, patient identity & demographics, diagnostics & imaging, electronic test requesting, maternity, eyecare and referrals.

ⓘ Established a collaborative Technical Design Authority including an architecture board and design assurance processes, an enterprise architecture framework and working groups to shape architecture principles, standards & patterns.

ⓘ Led the Data Strategy for the National Data Resource (NDR) including initiating the strategy, procuring a partner and co-leading the strategy alongside the NDR Programme Director.

ⓘ Led the cloud technology appraisal and selection for the All-Wales Data Platform and oversaw design of the data & analytics capability.

ⓘ Supported the response to the Welsh Government Digital Architecture Review, including establishing the strategy for the Data & Integration Hub.

Sep 2019 - May 2021 | Nuffield Health | Head of Data, Integration & Insights Platform

Building and leading Nuffield Health's Data, Integration & Insights platform, with five direct reports, a permanent headcount of seventeen and an annual budget of ~£3m.

Key achievements:

ⓘ Established and structured DI&I platform team, comprising two engineering teams (data & integration), delivery and architecture leads and product leads with portfolios covering data products, business integration and clinical integration.

ⓘ Established AI & Data Science apprenticeships.

ⓘ Formulated five-year strategic objectives for the platform.

ⓘ Procured and established our strategic data stack including our Cloud Data Warehouse (Snowflake) and Data Integration toolset (Talend).

ⓘ Led the internal team, contractors and data delivery partner to deliver data and integration applications for Nuffield Health's programmes, including:

- Cost & Profitability reporting
- Workday ERP integrations for 'procure to pay' and 'order to cash'
- Salesforce Single Customer View integration
- Electronic Patient Satisfaction surveys

ⓘ Leading strategic value chain integrations with our partners, including:

- Electronic booking APIs for Private Medical Insurers
- Pathology results integration with our pathology customers

Jun 2017 - Sep 2019 | Nuffield Health | Enterprise Architect – Health & Interoperability

Defining Nuffield Health's health platform and interoperability strategy as a member of the Enterprise Architecture team.
Key achievements:
ⓘ Defined technology strategy and architecture roadmaps for:

- Interoperability
- Radiology and Imaging
- Nuffield Health Barts hospital

ⓘ Formulated and socialised the approach and architecture for Nuffield Health's in-house integration capability, including the selection of open-source integration technologies and frameworks, proofs of concept and designing a secure hosting architecture in Microsoft Azure.

ⓘ Recruited the in-house integration team including Integration Team Lead and Technical Architect and oversaw design of the first cloud-hosted integrations in Microsoft Azure.

ⓘ Defined assurance processes for new interoperability and integration designs and chaired the Interoperability Assurance Group.

ⓘ Positioned Nuffield Health as 'First of Type partners' with NHS Digital in the NHS Transfers of Care programme, implementing a successful proof of concept of eDischarge using HL7 FHIR messaging.

May 2016 - Jun 2017 | Nuffield Health | Clinical Solutions Architect

Lead architect and leadership team member for Nuffield Health's flagship Electronic Patient Record (EPR) programme, including leading the Integration Team and all aspects of applications integration.

Key achievements:

ⓘ Successful rollout of Intersystems TrakCare EPR at our first pilot hospital in July 2017, with successful integration into business and clinical applications including pathology, radiology, endoscopy, finance systems, data warehouses, business continuity solution, national registries and statutory reporting.

ⓘ Led a successful negotiation with PACS/RIS supplier leading to an acceptable technical and commercial approach to EPR integration, with savings to the business in the order of £1m.

Sep 2008 - May2016 | NHS Wales Informatics Service | Lead Applications Architect

ⓘ Specification, design and prototyping of national architecture, national applications and applications integration.

ⓘ Technical lead for national projects and procurements. Working together with clinicians, private sector partners, contractors and NHS Wales IT teams to provide national IT solutions.

Key achievements:

ⓘ **Welsh Care Records Service**

Designed and implemented the Welsh Care Records Service, an Electronic Document and Records Management (EDRMS) system forming the bedrock of the Single Patient Record for NHS Wales. Led the introduction of open source enterprise search technologies (including Apache Solr) to support Full Text Search and faceted navigation of electronic records.

ⓘ **Choose Pharmacy: Discharge Medicines Review service**

As lead architect for the Welsh Government's flagship Choose Pharmacy project, I led the design and development leading to the successful implementation of the Discharge Medicines Review application, allowing patients' medicines information to be shared across hospital, GP and community pharmacy settings

① Applications lead for national laboratory system (Intersystems TrakCare Lab)

Applications lead for the £multi-million national laboratory system (LIMS), from procurement to implementation. Led the interoperability architecture and the integration and messaging development to integrate TrackCare Lab with other national systems such as the Master Patient Index (MPI) and the Welsh Clinical Portal (WCP).

① Welsh Clinical Portal

Designed key modules of the Welsh Clinical Portal, an application that provides the 'front door' to the national Electronic Health Record (EHR) for clinicians in NHS Wales, including: Patient record navigation (incorporating full text search and faceted navigation), Electronic Prioritisation of Referrals, Alerts & Notifications, Graphing & Tabulation of Pathology results. Designed the integration architecture for the Medicines Transcribing and Electronic Discharge module.

① Welsh Reference Data Service

Designed and implemented the Welsh Reference Data Service, a key architectural building block in NHS Wales' Service Oriented Architecture, providing reference data services to national applications such as the Welsh Clinical Portal, the national Laboratory system and national integration services.

① Processes and standards for design and development

Introduced national processes, standards and templates for design and development of national applications, databases, integration solutions and messages and provided training to IT staff throughout Wales to facilitate adoption.

Jul 2007 - Sep 2008 | Welsh Blood Service | Software Development Manager

① Accountable for development, management and support of business-critical and safety-critical systems in a highly regulated environment, under the regulatory scrutiny of the Medicines and Healthcare products Regulatory Agency (MHRA).
① Management of the software development and support team.
① Managing and improving the team's ISO9001 TickIT accredited software development and support processes.

Nov 1998 - Jul 2007 | Welsh Blood Service | Senior Systems Analyst | Analyst Programmer | Programmer

① Business and systems analysis and design for WBS systems.
① Production of functional and technical specifications.
① Supervision of the software development team and service desk.
① Project management of software development projects.
① Design and development of information systems.
① Design, development, testing and documentation of software for safety-critical systems.
① Incident and problem management

Feb 1998 – Nov 1998 | NTL Internet (Virgin Media) | Technical Support Engineer

① Providing technical support, advice and customer services to NTL and Virgin Net internet customers.