# cv of Warren Ayling

# Last Updated: 17<sup>th</sup> April 2024

### **Personal Skills**

- Hand On
- Delivery & Results Focussed Enthusiasm & Passion Problem Solving Attention to Detail Creative Reasoning Analytical Reasoning Mentoring Lead by Example



Previously Solutions Architect Associate & Developer Associate Certified (Nov 2017)

# **Technical Expertise**

Fullstack Dev & DevOps Web & Mobile Apps Large Scale Systems Dev Data Driven Systems **Event Driven Systems** Containerisation Virtualisation **Cloud & Private Hosting** Solutions Architecture **Technical Architecture** Enterprise Infrastructure Enterprise Integration **Enterprise/App Security Application Hosting Application Development Technical Documentation** 

# Professional Expertise

AWS Cloud/Serverless Agile Development Senior/Lead Developer Senior/Lead DevOps Team Manager/Leader Development Leader Design Authority Solution Architect Technical Architect Project Management Coaching & Mentoring

# Professional

MIET (No. 25224171) - 1990

With a passion for building solutions having extensive application, data, platform (on-prem and AWS) & infrastructure experience in the IT industry across the full software lifecycle, most significantly in application development viz. AWS serverless and typescript/node.js) & automated deployment in International environments. A cross-skilled hands-on Technical Architect/Developer/DevOps working seamlessly across all levels with multi-disciplined, geographically dispersed customer, internal/project and supplier teams, quickly establishing confidence and trust for delivering complex IT solutions including mentoring others. Results focussed with agility, having a proven track record for quality solutions that focus on real business & user benefit, using strong analytical & creative reasoning to overcome problems, all the while embracing change & tech debt for continuous improvement.

## IT Contractor - WOZiTech Ltd

#### September 2016 to Feb 2024

Independent senior developer and devops on multi-skilled agile (scrum) projects.

#### Senior AWS Platform Engineer (framestore - 14 months - hybrid)

Contracted to custom digital signage platform. Responsible for AWS Architecture, security, ops, API development and deployment across multiple AWS accounts (Ous). 3<sup>rd</sup> API integration (AccuWeather, box.com & Facebook/twitter with AWS Secrets Manager for rotating API access keys). Introduced Cloud and On-Premise monitoring & alerting with SSM Document automation. With tier 1 global bank client, integrated SAML via Active Directory. Dockerised Drupal app. Led complex spikes including the replacement of Drupal app with both AWS APIGW synchronous and event-based asynchronous Step Functions.

Technologies used include: typescript/nodejs with unit testing, CDK (typescript) automated deployments, CloudFront/Certificates/Route53, S3, lambda, SQS, APIGW with OpenAPI, DynamoDB, Cognito with federated SAML , WAF, Organizations, Identity Manager (SSO), IAM, SSM (including on-prem with log shipping) and SSM Documents for automation, CloudWatch Metrics/Alarms, Secrets Manager, AWS Backup, VPC, ALB/EC2, RDS (postgres) and docker. Successful full handover to permanent staff with full set of Confluence documentation.

#### Senior Backend Engineer (motorway – 6 months - hybrid)

Contracted to motorway, on multiple node.js/typescript microservices. Other tasks included leading migration from shortcut to Jira, paired up with infrastructure squad and successfully transitioned main customer website from heroku to AWS, cross-platform capability on Linux (previously only ran on MacOS), onboarding and mentoring engineers and promoting good agile practice within squad. Introduced a managed tech debt recovery process and was nominated for most disruptive capability one of the hackdays. Introduced cross-platform capability on Linux (previously only ran on MacOS).

Technologies used included: nodejs/typescript with unit testing, OpenAPI, BeanStalk/EC2, ElasticCache (redis), RDS (postgres).

#### Senior Developer (Digital Detox - 5 months - remote)

Senior developer, led their newest client on migration of legacy unsupported & undocumented internal CMS application to headless CMS (GraphCMS). Led client discovery sessions with multi client stakeholders, documenting and agreeing detailed solution incorporating the client's own technologies and processes. Defined the backlog, led refinement, sprint planning and daily stand ups along with maintaining the project RAIDD log and Technical Decision Log to successful delivery with 360° data confirmation. Liaised directly with the GraphCMS product and technical team.

Technologies included: GraphCMS (now Hygraph) with GraphQL (query & mutation), nodejs/typescript, MySQL including stored procs, data migration and data bulk loading (nodejs streams with concurrency control and error capture/replay).

#### Platform API Engineer (News UK – 19 months – onsite and remote [covid era])

First onsite then owing to pandemic fully remote across UK and Bulgaria, to design, build and maintain Audio Platform a secure secure GraphQL API across recognisable digital radio brands. Development, test, deployment and support including monitoring, with mentoring and technical leadership. Led the introduction and implementation of PACT contract tests with Circle CI deployment integration. Led load test and platform validated prior to essential Boxing Day/New Year scaled activity. Extensive Kong to include Auth0 client JWT and led integration with 3<sup>rd</sup> parties across the globe. Worked with Akamai consultants on custom

# **Technical Skills**

terraform nodejs inc jest typescript Linux AWS CloudFormation & SAM AWS CDK AWS APIGW inc velocity AWS SNS/SQS AWS Secrets Manager AWS SES with templates AWS S3 inc event integration AWS SSM & Documents AWS Lambda **AWS Step Function** AWS Cognito inc SAML AWS Backup inc continuous with restore AWS RDS AWS DynamoDB AWS DocumentDB AWS IAM AWS EC2/ALB AWS VPC inc PrivateLink AWS ECR & EKS **AWS Kenesis** AWS BeanStalk **AWS Cloudfront AWS** Certificates AWS ElasticCache (redis) AWS Route53 AWS CloudWatch logs metrics and alarms AWS CodeCommit GraphQL Jenkins Circle CI/TravisCI github actions Ansible/Puppet Enterprise JIRA/Confluence/BitBucket Ionic/Capacitor JSON, XML, XSD and XSLt New Relic/DataDog Windows Desktops/Servers **Enterprise Networks** vmware/Citrix/KVM/Vagrant MySQL & PostgresSQL SQLServer/Oracle MongoDB inc Atlas Slack Integration 3<sup>rd</sup> Party APIs such as, Facebook/twitter, apimo and Accuweather Many COTS & GOTS Many Bespoke applications

caching for large scale data optimisation and invalidation. Introduced cross-platform capability on Linux (previously only ran on MacOS). Spearheaded changes to transition from engineer rotation (nobody enjoyed) to a single platform team working across Audio Platform and middleware, able to adapt to changes in sprint load and shared (team) responsibility.

Technologies included: terraform (some terragrunt) via Circle CI, EKS (kubernetes), GraphQL, nodejs/typescript with unit and integration automated tests, IAM, DocumentDB (MongoDB), S3 and CloudFront/certificates/Route53 in addition to complementary Akamai and Kong Gateway, DataDog and New Relic.

#### Technical Lead, Platform Lead (Achete Moi – 17 months - remote)

French Estate agent startup. Inherited the development of an i18n Java spring boot, thymeleaf and PostgreSQL web application with a complementary serverless API and integration platform. Quickly established separated environments and a product board (trello), with bug and feature backlog. Introduced 'daily' stand ups and established priority driven backlog. Sourced, recruited and onboarded Java freelancers via upwork, operating as scrum master, QA and release manager, responsible for preparing and deploying application releases in test, showcases and production deployment. Integration 3<sup>rd</sup> party API (apimo). Trialled AWS CloudSearch for multi-faceted, multi-language and geolocation property search.

Technologies included: Java v8, springboot, thymeleaf, postgresql, terraform for deployments, AWS IAM, APIGW, lambda with typescript/nodejs, Step Functions, CloudWatch (rules), SES with multi-language templates and SNS.

#### Technical Lead, Platform Lead (FIND IT 360 – 6 months - remote)

UK Estate agent (FIND IT 360) start up. Resourced and led two ReactJS UK freelancers (mentoring, pair programming and code review) via upwork. Single code based web and app (Apple & Android). QRcode treasure hunt promotion. Swipe "left/right" property search.

Technologies included: ReactJS with redux, Capacitor (for apps), terraform (automated deployments), AWS IAM, APIGW, CloudFront/certificates/Route53, Cognito (with register & unregister and optional 2FA), lambda, SES, RDS (postgres), BeanStalk/EC2.

#### Senior Backend API Developer (Sopra Steria – 9 months - onsite)

API designer and developer with full responsibility translating requirements to API deployment, consumed by Angular SPA deployed on Gov PaaS covering API namespace, JSON schema, endpoint security (JWT), transactions & idempotency. Datastore PostgreSQL; responsible for the schema design, patching and mapping through API to JSON schema. Included substantial property level change audit logging. Secured clean ITHC report. Led the database migration. Demo'd AWS QuickSight with Athena against S3 for visual analytics. Introduced CDC streaming from RDS via Kinesis to MongoDB Atlas for strapi admin CMS.

Technologies included: terraform, Travis-CI, nodejs, MongoDB Atlas, strapi (CMS), AWS VPC/EC2, RDS (postgres), CloudFront, Cognito, IAM, SNS, Secrets Manager, QuickSight, Athena, Kinesis.

#### Microservice Designer (photobox - 9 months - onsite)

On client site, responsible for microservice design with extensive JSON/GraphQL documentation/validation and JSON examples to be consumed by the engineering team. Worked closely with the engineering team to ensure proper implementation of data model, including the rationale (benefited from my node.js/React knowledge). Introduce a data model test framework, using nest.js (typescript) with comprehensive set of "product scenario" Jest tests including Jest generate JSON data examples using a builder style syntax. Worked closely with the architects to design and prototype an AWS serverless solution secured via Auth0 which included running puppeteer to render React to high quality PDF (printing) with automated Jenkins build pipeline for CI/CD.

Technologies included: Jenkins, ReactJS with redux, JSON, JSON Schema, JSONata, Auth0, ghostscript, nodejs/typescript with substantial jest, AWS APIGW with custom authorizer, lambda, DynamoDB, Kinesis, Step Functions.

#### DevOps Lead Engineer (Home Office - 15 months - onsite)

Mastered Jenkins and puppet for fully automated CI/CD across 100+ linux servers. Built a virtual (KVM) environment for puppetised guests, with custom PxE bootstrapping; able to provision a customer's fully functional test service within one hour. Crafted a "Developer's Release Dashboard" using JQuery and PostgreSQL JSON showing what version of application (+8) and components (100+) are deployed to which environment (30+) when and by whom.

Technologies included: Jenkins, puppet, Nexus, Stash (BitBucket), Atlasian Crowd (SSO), Jira/Confluence installation/administration, KVM, PxE (tftp/iSCSI), Linux (RHEL).

## **Personal Details**

London, UK



Address on request Contact numbers on request jobs@anglodutch.me.uk

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Full UK Driving License

British Full UK Passport

SC (NPP3) Clearable/Expired UK DBS Vetted

# 1994 Master of Engineering (MEng)

Electrical & Electronic Engineer at Loughborough University of Technology

# **1990 5\*A-levels** (3\*Grade A, 2\*Grade B)

Pure Mathematics, Applied Mathematics, Pure & Applied Mathematics, Physics and Electronics

# Interests & Hobbies

IOT, Knitting, DIY, Gardening

References are available on request.

#### Senior IT Consultant - CGI

## formerly logica formerly CMG - More info on online resume

Alongside client work, a People Manager for last 10 years at CGI, for a team of 8-10 other consultants at various levels in various locations across London, Reading and Leatherhead responsible for personal development and corporate ethics; included annual performance reviews and formal coaching & mentoring. Rode in two Princes Trust Palace to Palace charity rides promoting internally for others to join team ride.

September 1998 to August 2016

#### Internal Government Centre of Excellence (6 months)

Resulting from a "throwaway" idea for using Raspberry PIs, pioneered two web projects using on both oriented at public displays (one client based and one corporate) using AngularJS, nodejs/express, handlebars and MongoDB with gulp. Responsible for concept development, application development, mentoring junior developers, solution definition, solution architecture, solution sponsorship and solution promotion. Built and demonstrated proof of concepts and have recently secured project funding and client interest for one of these projects; the other is used in main reception at headquarters.

Central Government Department - 4 years

Infrastructure Design Authority (DA), Technical/Solution Architect (TA/SA) & Team Manager

DA leading a team of network, storage and server engineers with successful delivery on SECRET production/DR & preproduction private cloud App Hosting environments for 400+ Virtual Servers and 50+ applications.

As Technical Architect to "New Capabilities" client onsite team providing technical direction across multiple propositions. Transitioned with upgrade into data centre a critical supplier app that had two previous failed attempts (before new regulations came into force). Showcased trusted advisor and delivery with the client, creating enviable relationship with invite to resolve a technical security challenge within EU.

Technical Lead on complex transition of government department; success owing to direct end user liaison and both high & low level understanding of app hosting and wider network services.

Led to placement as "New Capability Technical Team Manager" responsible for twelve senior TDAs, TAs and SAs. Responsibilities included line management, project assignments and reviewing all propositions. Continuous client successes resulted in creation a new custom role that of "Innovation Lead" within the client's own Digital Transformation team.

Central Government Managed Services Programme - 6 years Infrastructure, Developer & Technical Architect

Part of the successful bid team working on sales differentiating service improvement projects. Led the demonstration of virtualising a business critical legacy SPARC Solaris application (WebLogic, Mercator & OracleDB); coined the term "App-In-A-Box"; the first demonstration within CGI at the time. Within six months, had successfully transitioned the application to production data centre hosting.

Virtualised a Tru64 application using dedicated hardware emulator allowing hosted of application in private data centre; worked directly with incumbent Tru64 developer and supplier.

Developed extensive knowledge on complex Application Hosting and established self as a trusted deliverer of complex IT. Often called upon for my knowledge of the hosting and wider infrastructure provided by separate supplier for expedited change & delivery.

Upgraded a business critical application, replacing a core integration component (Mercator) that was out of support. Worked closely with IBM (WebSphere Integration Broker) Architect with a local team of app developers and the hosting subcontractor using SPARC Solaris containers for high availability and fast upgrades.

Various roles/various Clients - 9 years

Including Shell (five years), npower (remote client site - one year). Technologies included: JavaEE, WebSphere, C++, C#.NET, ASP, Oracle DB, AIX, DB2, Windows Server, SQLserver, OpenTrade (tibco equivalent).

#### Team Leader, Developer - MSI

May 1996 to Sept 1998

MSI (Mobile Systems Internal) More info on online resume

ilable Software Engineer - Ferranti-Thomson Sonar Systems Ltd Oct 1994 to May 1996 More info on online resume