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British Citizen / New Zealand Permanent Resident

1 Summary

- Led, designed and delivered *at scale* solutions for leading brands since early 2000's
- Built big data/low latency solutions for BBC i-Player, Morgan Stanley, NTT, Spark's Spotify Integration
- Specialised JVM/Node fullstack polyglot (EAI/DDD/BDD/TDD/Microservices/Frontend)
- Strong generalisations across immutable infrastructure, linux, datastores, security
- Provided direct technical and architectural coaching for multiple teams
- Successfully mentored/championed/partnered with my teams to achieve full cross-functionality, user-engagement and continuous delivery
- Champion of user empathy, a common business language, fast-feedback, automation and continuous improvement
- Always improving craftsmanship of myself and those around me
- Experienced Agilist with a preference for Kanban and Lean
- ICAgile Certified Coach. In training for Insight Facilitation Framework.
- Iteration Master on a large transformation for New Zealand's Prime Minister and Cabinet Office, working with the Cabinet Secretary
- InfoQ.com News Editor, Code Club Teacher, DevOpsDaysNZ organising team, regular speaker at meetups and conferences

Implementation Languages:	Java, node.js, Perl, Ruby, Python, C, Scala
Databases:	PostgreSQL, Sybase, MySQL, Asset Control
nosql:	memcached, MongoDB, Casandra
Operating Systems:	Linux (Ubuntu, CentOS/RHEL), Solaris, FreeBSD, Mac OS X, Windows
Java Frameworks:	Spring 4, JPA, RatPack, AEM, OFBiz, JMS, Alfresco
Node Frameworks:	Express, Sequelize, React/Redux, GraphQL, Mocha, Cucumber.js, canned

2 Experience

- **Openclassrooms.com** London, UK
Remote Computer Science Professor and Consultant *Feb 2018 - present*
 - **Working as a professor by title**, I have developed my teaching aptitude through creating undergraduate classes for a French accredited online university. In partnership with Learning Specialists and Beta-Testers I have built online courses and defined assessment criteria for undergraduate Java Testing, Java Debugging, Concurrency and API Design courses. I also provided contracted consultations to other professors on Spring related courses. I have partnered with OpenClassrooms on their syllabus for a Master's Program in Architecture and produced industry-based projects using real code and other artefacts to simulate reality.

Experience: fully remote work, teaching, consultancy, media training, presentation of technical material, script production, course and syllabus design, applying learning loops to teaching, self study of training from the back of the room, TOGAF ADM, architecture, Springboot, Spring data, Spring security, Testing pyramid, cloud formation

- **MPorium** London, UK
Agile and Technical Consultant *July 2018 - January 2019*

- **I joined MPorium as a hands-on Technical and Agile Coach** after being forced back to the UK due to a family crisis. During my time there, I supported a small development team experiencing the growing pains of a scaling start-up in the data intelligence domain. Leading by example, I spent half my time delivering ad optimisation stories on an AWS/Spark/Storm/Springboot stack.
- **In my capacity as a coach**, I ran test strategy workshops, business/technical risk elicitation sessions, domain modelling events, Scala/Spark/Storm mob programming tutorials and Clean Code brown-bag lunches. Attempting to create a fail-to safe culture of continuous improvement, I also ran 5-whys sessions.
- **I supported Product Owners and developers** in working with the broader organisation to start using hypothesis driven development and specification by example. I also developed Agile Fundamentals training for the teams, to address confusion over Agile ceremonies which were technically biased.
MPorium's new CTO partnered with me on rebooting the teams and defining team level working agreements and backlogs before a new Sprint Zero.
- **Technical coaching and leadership of teams-** Coached and supported teams in API contract design, appropriate application design, experimentation, building Spring microservices, React front-ends, testing pyramid and DevOps patterns. Ran domain-modelling sessions and championed understanding of the domain language, prior to creating contracts. Facilitated sessions to break teams out of design stalemates. Helped a team visualise debt and break constraining dependencies on other teams for CI. Assisted insights developer in structuring an NPS project using sbt/scala.

Experience: coaching remote teams, AWS, ECS, Lambda, Java, Springboot, Spring-data, Auth0, OIDC/JWT, Spark, Storm, Containerised Gatling Tests, Scala, Hypothesis-driven development, team-rebooting, coaching, mentoring, facilitation, working with uncertainty, Scheduled Lambdas, Gatling, Docker-compos, couchbase, architecture, Swagger/OpenAPI, Hypothesis driven development

Bank of New Zealand

Wellington,

Technical Design Lead for Partner (Commercial) Banking Jan 2018 - June 2019/Interrupted by passing of mother in the

- **Member of leadership team across partners (commercial banking) tribe** - Partnered with business, design, architecture and usability leaders in supporting and growing newly product-centric teams, within a customer centric Spotify-esque model, applying customer centricity and microservice architecture techniques. Created microservice champion practices within the teams and assisted in road-mapping.
- **Technical coaching and leadership of teams-** Coached and supported teams in API contract design, appropriate application design, experimentation, building Spring microservices, React front-ends, testing pyramid and DevOps patterns. Ran domain-modelling sessions and championed understanding of the domain language, prior to creating contracts. Facilitated sessions to break teams out of design stalemates. Helped a team visualise debt and break constraining dependencies on other teams for CI. Assisted insights developer in structuring an NPS project using sbt/scala.
- **Partnered with architects and other technical leads** - Worked with other leaders to strive towards a coherent journey towards our target state architecture, while always championing local autonomy of the product centric teams to validate hypotheses and iterate rapidly.

Experience: Coaching, product teams, architecture, kafka, OpenShift, Swagger/OpenAPI, Java, Spring, React, Scala, Radar, Hypothesis driven development, mule

Fairfax Media Ltd

Wellington, NZ

Technical Coach and Lead

May 2015 - Jan 2018

- **Member of leadership team** - Partnering in providing technical leadership, coaching Agile development and software engineering practices across a large number of self-selected, co-located, remote and vendor teams, within a rapidly evolving emergent architecture. Mentored and steered emergence, providing direct technical coaching at individual and team level. A dynamic and transparent environment with in-team 360 reviews. Successfully guided my teams towards continuously delivering value-slices, as microservices or atomically deployable and deliverable components.
- **Technical Lead of Web Experience Team** - Leading a team of front-end developers, with a focus on instilling early validation, Continuous Delivery, engineering and testing values. Team's focussed delivery is a replacement of a server-side Java news article with an isomorphic React/Redux/GraphQL application, intended for faster value delivery.

- **Agile Technical Lead and Coach for Video Team** - Led a team from delivering solutions within the bounded context of video delivery and ingest. Succeeded in moving from weekly and brittle releases within a monolith to the continuous delivery of EC2 and containerised microservices designed and architected through ATDD/London-school TDD and mob-programming across 6 cross-functional engineers. Guided the team through working with stakeholders to define behaviour early for driving ATDD and applying an appropriate testing-pyramid. Coached in use of test-doubles. Actively paired with team members. Scala used for driving Gatling tests of legacy app.
- **Technical Coach with a remote content discovery team** - Remotely led a team innovating in the space of making content more discoverable through the use of NLP and 3rd party AI solutions, used for semantic tagging. Integrated into monolith with appropriate abstraction tiers. Involved close collaboration with stakeholders and a period of performance analysis, due to an indirect impact on poorly scaling and performing legacy platform. Also involved work to migrate UI from ExtJS to Angular with appropriate testing.
- Guiding teams towards solutions to break behaviour away from a friction-fraught centralised monolith.
- Championed and succeeded in making node.js a first class language on our stack. This has resulted in delivering more natural team cross-functionality, quality delivery and greater participation in platform ownership.
- Technical Domain owner for video, interacting with multiple teams, in the spaces of content navigation and syndicated content partnerships.
- Championed LeanUX practices and introduced a programme to facilitate developer observation of editorial users.
- Participated in self-selection and supported squads. Formed DevOps and Software Craftsmanship Guilds.

Experience: Technical coaching, Kanban, self-organising teams, team self-selection, emergent architecture, Scala, Node.js, AWS, Lambda, React, Docker/Compose/Jet, Consumer Contracts, Lean UX, Swagger, Java, OSGI, JAX-RS, Elastic Search, Docker, Vagrant, Building Technical Radar, Hypothesis driven development

• Catalyst IT Ltd

Wellington, NZ

Senior Software Engineer, Solutions Architect and Iteration Master

Oct 2013 - May 2014

- Iteration Master and Senior Java Developer on an Alfresco based Agile project for New Zealand's Prime Minister and Cabinet. Collaborating with a parliamentary Product Owner value-team, I was involved in a Scrum-master like function to deliver a document management solution. I led Agile ceremonies and fostered a spirit of continuous improvement, mentoring in Agile practices. Championed principles of BDD and test automation in an environment with a traditional documentation and manual testing bias.
- High profile tender project for Telecom NZ (Spark), implementing Spotify integration. Working with project level waterfall constraints, I implemented a, constrained, behind the scenes Agile project. Requirements document converted into Gherkin user stories. Solution implemented using Spring-batch, Spring MVC and Alfresco. Co-architected software solution and performed initial proof-of-concept implementations with WS02 and Camel. REST and OAuth user synchronisation between two systems, dealing with trans-pacific latency issues.
- Dev and ops on Stuff.co.nz's front-end and content management platform for Fairfax Digital. Architected and led development of an identity management web service in node.js, validated with Cucumber.js. Involved in aiding migration to an Adobe CMS solution. Implemented tool to aggregate page view stats as part of an ad collector solution. Created EC2 dev sandbox environments of the Stuff platform for Fairfax front-end devs.

Experience: Iteration Master, Pair-programming, TDD, BDD, Cucumber, Java, Spring, JPA/Hibernate, Mockito, Postgres, git, IntelliJ, Jenkins, Redmine, Mediawiki, FreeMarker

• Dreamthought Technologies Ltd

London/Cornwall, UK

Chief Geek/CTO

2010 - November 2014

- Analysis and Requirements gathering with iterative estimation process for various small to medium sized software projects.

- Primary software consultancy clients: BBC iPlayer, Headforwards Ltd on projects for a large telco. (*See below.*)
- Delivered talk with Katherine Kirk on agile team empowerment at QCon 2012, London.

Experience: Requirements gathering, client interaction, estimation and costing, Kanban, Agile, iterative delivery, time management, marketing

- **BBC Publishing Services / iPlayer (Primary client for Dreamthought Tech)** London, UK
Java Software Engineering Services on a b2b message orientated middleware project April 2013 - Oct 2013
 - Fast paced project to tight deadlines, implementing, domain logic intensive, notification and publication of program. metadata changes for a third party's set-top boxes.
 - Reverse engineering and identifying implicit specifications of a legacy Perl stack, iteratively implementing in Java.
 - Implemented MBean's to monitor queue and broker state.
 - Improved test coverage of existing code base.
 - Creation of team-wide Splunk Dashboards and presentation to Publishing Services.

Experience: Kanban, Sonar, Pair-programming, TDD, Java, Apache Camel, Spring, JPA/Hibernate, JMX, MBeans, Zenoss, Active-MQ, JMS, Mockito, MySQL, Apache Velocity, git, IntelliJ, Jenkins, Jira, Confluence, Cucumber, mvn, FreeMaker

- **Headforwards Ltd. (Via Dreamthought Tech)** Cornwall, UK
Software Engineer Services (Cloud Virtualisation) Jan 2012 - April 2013
 - Developed interface with VMWare vCloud Director (VCD) for uploading and downloading OVA templates.
 - Led team on implementation and deployment of high-latency, asynchronous, multi-master replication.
 - Implementation of Selenium WebDriver test automation.

Experience: kanban, OO Perl, Plack, Moose, Moo, Postgres, Python, WebDriver, replication, VMWare vCloudDirector, Virtual Center, OVA, OVF, confluence, cloud virtualisation, git, Selenium WebDriver, developer in testing, jquery, css / less, Eclipse, pydev, pysaunter

- **BBC Publishing Services, Dynamite iPlayer, BBC** White City, London, UK
Senior Software Engineer on iPlayer (via Dreamthought Tech Ltd) Oct 2010 - January 2012
 - Led the Performance and Optimisation stream on the BBC iPlayer's broadcasting-reference data service; proactively monitoring and addressing performance issues, whilst facilitating better performance monitoring tool-chains and practices.
 - Working in a Scrum driven team, I worked on various new features and bug fixes on an ETL system and public facing RESTish services.

Experience: Scrum, Kanban, XP, planning poker, pairing, code reviews, TDD, OO, Test Driven Development, MySQL, Emacs, svn, git, Test::*, Web Services, High Performance, Performancea and Optimisation, web service design, program metadata, Splunk, hudson, Java, C, Perl

- **Trinity Mirror Digital Recruitment** London, UK
Senior Software Engineer Jul 2008 - Oct 2010
 - Architected an overridable and configurable email alert system, performing millions of custom job searches nightly. Implemented as a multi-tier chain, with the level of parallelization configurable at each phase of processing (query generation → execution of custom search → data validation → enrichment → data transfer). Tuned through benchmarking and Apache Solr optimisations.
 - Architected and led two other developers in a project to migrate finance functionality from a custom CRM to Salesforce's in-the-cloud platform.
 - Optimized internal, Apache Lucene based, indexer to perform complete cv index (4m+) in hours as opposed to days.

Experience: Java, OO Perl, Solr, Spring, Confluence, Search Strategies, Test Driven Development, MYSQL, MS-SQL, Perl CGI, junit 4.x, Java 1.5, Salesforce, Apex, Ant, Eclipse, Komodo, Team leadership, mentoring, Test::*, HTML::Template, CVS, SVN.

- **Morgan Stanley, Securities Reference Data, Enterprise Data Group** Canary Wharf, UK
Aug 2007 - Jul 2009
Software Engineer
 - Refactoring and development of asynchronous Java middleware ETL and publication services; included addition of caching manager, speeding up an internally developed Java middleware product.
 - Refactored/Developed/Knowledge Shared on internal libraries (and tests) for Logging, MQ connectivity, DB connectivity (with Exceptions).
 - Implemented tests for all core classes and presented talk on test driven development.
 - Implemented cross-database deleter tool and provided design feedback for inhouse, ETL architecture.

Experience: OO Perl, Test Driven Development, TSQL, Sybase, Perl CGI, POE, junit 4.x, Java 1.5, Ant, Eclipse, Komodo, Requirements Gathering(course), Test::*, MQ, AbInitio GDE, TSQL Stored Procedures, SQL-Lite, TT2(Template Toolkit), CVS, RCS, TimeManagement/Presentation/Communication Skills(courses followed), calendar spreads, equity and fixed income.

- **VisionOSS** Green Park, Berkshire
Nov 2006 - Aug 2007
Software Engineer
 - Polyglot role on Cisco Call Manager and VoIP integrations. Built queueing engine in C. SOAP services. C# QA Wizard test automation. Owned our own deployments. Pg DBA duties.

Experience: C, Perl, C#, XS, PostgreSQL (admin), Gentoo Linux, What we'd now call DevOps, WSDL, SOAP, C#/QA Wizard Test Automation, XML, XSD, (CGI's+Apache::Registry under Apache 1.3), Perl XS, svn(subversion), Eclipse (+ EPIC), SharpDevelop IDE, Portage, Gentoo Linux Admin., VMWare, Windows, VoIP (Cisco CCM).

- **Abbey Financial Markets (Santander)** London, UK
Feb 2005 - Nov 2006
Senior Asset Control Developer
 - Designed XML Schema and JMS queue based notification infra for financial instruments. Sybase DBA'ing. Perl, C and Java integration with Asset Control. Solaris Ops. Championed testing and engineering practices in SDLC. Built config driven Swing UI creator. Knowledge sharing on Asset schema.
 - Appointed to intra-department Architectural Governance committee.

Experience: Perl(Inline::C, SOAP, SAX, MQ), Java(Apache Commons Digester, Apache Maven, AC API's, SOAP, JMS & MQ, AWT & Swing, Junit, Xdoclet, EJB), Solaris 8/9, Sybase, Oracle 8/9i, C (AC API), C++, DBX, MQ-Series, Summit, Asset Control (Notifier, All API's), C# (remote service invocation), XML, XSLT, Solaris, AutoSys, CVS, Internal Technical Presentations, Technical Documentation, Bloomberg Server API, Eclipse IDE, Correlation and effective Volatility calculations, ISO-15022 Corporate Actions, Wide range of FX, equity, fixed incomes and various derivative type instruments.

- **ING Bank - Global Market Database (GMDB)** Amsterdam, The Netherlands
Feb 2003 - Feb 2005
Experienced Software Engineer
 - Servlet based GUI for FrontOffice to upload FX spot pricing Excel sheets to Asset Control. JNI and Inline::C integration for C libraries to messaging system and timeseries database. Developed c++ http-daemon/soap server for updating price timeseries with inhouse language. Timeseries graphing tool. Corporate Actions DB with semistructured DB.
 - Developed c++ http-daemon/soap server for updating price timeseries in in-house XML.

Experience: SOAP, Sybase, Semi-Structured (Semi-Relational/OO) Database Design, Java, Tomcat, Apache Struts, JNI, JExcel, Apache-POI, Perl 5.6.1/5.8.3, Inline::C, MVC, C, C++, STL, LAPACK, libgd, gsoap, pthreads, MPI, MQ-Series/MQI (C++ and java), XCOM, GNU Auto tools (Automake, Autoconf, etc), Rational Purify, gdb, Apache Ant, Rational Purify, gdb, mod_perl 2, Asset Control, Swing, XML, XSLT, MDDL, Python, Solaris (admin), NT, Domino, Corporate Actions, Bonds/Fixed Income Products, Equities, volatilities, FX (Spots and forwards), Bazian splines, TT2, IR, Delivery of talk to conference of peers.

- **Booking.com/Bookings.nl** Amsterdam, The Netherlands
Senior Software Engineer *Feb 2002 - Feb 2003*
 - I was one of the first 4 devs at booking.com and am their first commit, having introduced CVS. OO Perl based dev and redesign of their legacy hotel booking system. Designed new MC architecture, after evaluating frameworks. Pushed for modular code, OO, mod_perl, dev practices, version control and testing.

Experience: Template Toolkit, HTML::Template, Mason, Gossmer Threads, Design Patterns, mod_perl, PostgreSQL, MySQL, ERD/RDBMS Design, C, Perl XS (C), FreeBSD, Linux.

- **Codix.net Ltd** London, UK
Software Engineer and Systems Administrator *Jan 2001 - Feb 2002*
 - Sys.Admin duties of client(incl. Transport for London, ITN, Lennox Lewis) and in house servers.
 - Various bespoke dynamic web projects with front/backend components involving client interaction.

Experience: Client Interaction, Systems Admin (Linux, Solaris, FreeBSD, OS-X, W2K), Template Toolkit, Mason, C, Java, JBoss, O.O. Perl, LibXML/XSLT, mod_perl, ASPerl, Apache, Exim, CVS, PostgreSQL, MySQL, Oracle-8i.

- **Sportingbet.com PLC** London, UK
Junior Software Engineer *Feb 2000 - Jan 2001*
 - LAMP Stack. i18N internationalisation support, working with foreign language translators. Implemented parley betting subsystem. Developed interfaces for Interactive TV

Experience: Linux, Oracle-8i, MySQL, Interactive TV, CGI, Betting, utf-8, shift-jis, Apache, Perl

3 Relevant Qualifications

- **School of Computer Science, University of Birmingham** B'ham,UK
BSc. Hon. Computer Science and Artificial Intelligence with Study in Continental Europe *1994-1999*
- **Dipartimento di Informatica, Università degli Studi di Pisa** Pisa, Italy
European ECTS Credits *1997-1998*
- **Trained by Shane Hastie, Director of Learning at ICAgile** Wellington, NZ
ICP-ACC ICAgile Certified Professional - Agile Coaching *2016*

4 Other Interests

Community Contributions: Editor on InfoQ.com's Agile and DevOps Streams. Presented on Psychology and the Art of Pair Programming at JS Con NZ 2017 with a psychologist from Plymouth University. Helped organise DevOpsDay NZ 2016 and 2017. Co-presented an Agile war story with Katherine Kirk at QCon London 2013.

Sport and Interests: Running, astronomy, languages, star trek and fatherhood. Received a distinction on completion of Martin Odersky's Coursera Module, entitled Functional Programming with Scala. Run a Code Club for kids.

Recent Conferences: Numerous tech-talks, **InfoQ reporter at QCon London(2018)**, CodeMania 2018, **Speaker at JSCon NZ(2017)**, KiwiCon X (2016, Wellington), **Volunteer at DevOps Days Wellington(2016)**, ScaleConf (2016, Wellington), CodeMesh (2015, London), Agile NZ(2015), WDCNZ (2015, Wellington), Agile Alliance Open Day in Wellington(2015), **Speaker at QCon London(2013)**, Agile on the Beach (2012), YAPC::EU in Pisa (2010) and many others over the years.

5 Referees

Katherine Kirk
katherinekirk[AT]hotmail.com
Agile Coach and International Speaker
<https://www.infoq.com/author/Katherine-Kirk>

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