



Raf Gemmail

Lean Engineering and Architectural Leader

✉ raf AT dreamthought.com

📍 Kapiti Coast, Wellington, NZ

🇬🇧 British Citizen/New Zealand Permanent Resident

in www.linkedin.com/in/rafiqgemmail

github github.com/fiq

🐦 www.twitter.com/fiqus/

🌐 www.infoq.com/author/RafiqGemmail

Summary

- **Led, designed and delivered at scale solutions** for leading brands since the early 2000s.
- Built **big data/low latency solutions** for BBC i-Player, Morgan Stanley, NTT, Spark's Spotify Integration.
- Specialised **JVM/Node full-stack polyglot** (EAI/DDDD/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**. Working with Katherine Kirk on her Leadership Insight Lens and book.
- **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, speaker at meetups and conferences.

Work Experience

Computer Science Professor, online

OpenClassrooms

March 2019 - current

♦ Fully remote, NZ & Paris, Fr

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 **Java Testing, Java Debugging**, Java Concurrency and Building RestAPI's with Spring Data. 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.

fully remote working 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

Agile and Technical Consultant

MPorium

July 2018 - January 2019

♦ London, UK

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.

coaching remote teams AWS ECS Lambda Java Springboot Spring-data Auth0 OIDC/JWT Spark
Containerised Gatling Tests Scala Hypothesis-driven development team-rebooting coaching mentoring facilitation
working with uncertainty Scheduled Lambdas Gatling Docker-compose couchbase

Technical Design Lead

Bank of New Zealand

January 2018 - June 2018

♦ Wellington, NZ

Actively led and coached teams across BNZ's partner commercial online banking platform. During my time at BNZ I placed my focus on several teams which were cutting new ground by building public API's outside of its long-standing monolith.

Using techniques such as DDD and domain modelling, pair programming, continuous delivery and containerisation I supported several teams in launching microservices containerised on OpenShift.

As part of a broader architecture team I also helped provide governance and review of proposed OpenAPI specifications and strategic technical pivots. I also conducted retrospectives for mobile teams which were struggling with legacy architectural decisions. I supported adoption of security championship and participated in security training.

coaching product teams architecture recruitment Kafka OpenShift Swagger/OpenAPI Java Spring React
Scala Technical Radar Hypothesis-driven development Mule DDD Oracle

Technical Coach and Lead

May 2015 - January 2018

[Stuff.co.nz](#), [Fairfax Media](#)

Wellington, NZ

This role at New Zealand's most popular domestic website balanced departmental leadership, Domain Ownership, Agile technical coaching across multiple teams, Lean architecture, hands on development and mentoring. I served my teams in delivering Content Navigation features using AI and NLP, editorial video capabilities and a new reactive frontend. My teams were the first to achieve continuous delivery using TDD, BDD, Mob Programming, DDD and Trunk Based Development. I coached a culture of ownership with a "build it, ship it, own it"-mentality.

As part of the leadership team I helped create an empowered culture with team self-selection and alignment with business goals. I encouraged a safe-to-fail culture of experimentation, using hypothesis driven developments and captured architectural and organisational experiments using a Technology radar.

I joined Stuff.co.nz as the only Technical Lead across a large team of 20+ developers working to monthly release cycles on a debt-heavy monolith. Together we strangled this monolith. On my departure multiple specialised teams were releasing daily within bounded domains, using single responsibility Microservices and successfully using modern techniques such as mob-programming. I shared insights into our journey in a talk given at the Javascript New Zealand conference in 2017.

coaching remote teams Springboot OSGI vertx node.js Java Scala Gatling JCR PostgreSQL Elastic Search
ELK Jenkins AWS EC2 ECS/ECR SQS/SNS S3 Express JPA Spring-Data OpenAPI/Swagger
OIDC/OAuth2 Mocha cucumber.js cucumber-jvm Web Driver Testing Pyramid Strangler Pattern Continuous Delivery
Feature Flags A/B/Multivariate Testing React Redux GraphQL Canned Technical Coaching Mentoring Puppet
Vagrant Docker-Compose Codeship Raygun Loggly Mailchimp Prometheus Splunk Consumer Contract Testing
Architecture Sys. Admin & DBA jHipster Angular cloud formation

Senior Software Engineer, Solutions Architect & Iteration Master

October 2013 - May 2014

[Catalyst IT](#)

Wellington, NZ

I moved to New Zealand to work with Catalyst as a Solutions Architect and eventually took on the role of Scrum Master and Agile Lead on one of the country's largest projects for Government. I worked with the Cabinet Secretary, as my product owner, with whom I served a team of 30+ BA's, testers and developers, in modernising New Zealand's policy making process. Through leading by example on agile development practices, such as BDD/TDD/pair programming, I developed and architected the integration of New Zealand's largest telecommunications provider with Spotify's partner API using microservice and DevOps patterns to continuously deliver features. I also worked for Stuff, New Zealand's largest site, and performed DevOps and Development duties on their high-performance site. This included using node.js to migrate data between two very large CMS's.

Java node.js Ruby Perl PHP Spring Spring-integration Spring-batch Spring-data Rest WS2
Feature Flags Microservices Jenkins Alfresco Saml Puppet Vagrant Packer Mocha Jira Mockito
DevOps TDD BDD pairing facilitation mentoring in agile practices running retrospectives running requirements workshops
creating a culture of continuous improvement JIRA Sequelize Mocha Cucumber Architecture RabbitMQ ELK

Senior Software Engineer

April 2013 - October 2013

[BBC iPlayer](#)

London, UK

Short contract to build business-critical Java microservices in a timely manner. Reverse engineered and migrated a legacy set of Perl microservices to Spring and asynchronous Camel pipelines using intermediary queues. Optimised and automated release process to support near-continuous delivery. Defined business acceptance criteria using BDD workshops.

part- remote Java Perl Ruby Python Spring Apache Camel JMS Cucumber Mocha Jira Mockito
Jenkins BDD DDD TDD MQ Pair programming S3 SQS/SNS MySQL AWS EC2 DevOps
Third party integration

Senior Software Engineer

January 2012 - April 2013

[Headforwards](#)

Cornwall, UK

Designed and delivered subsystems for NTT's enterprise cloud solution. Co-architected and led initiatives to integrate single sign-on, automation testing and large OVA upload and bootstrapping. Stood in for Architects on request.

OO Perl Java JavaScript Python VMWare VCD / VC Rest Microservices JQuery SASS CORS
HTML / CSS / JS MVC Pysaunter / WebDriver PSGI / Plack PostgreSQL Cassandra DB Mocha Jira Mockito
Jenkins TDD Kanban Pair programming Multi-part uploads Multimaster replication Fault tolerance Automation Testing
DevOps

Senior Software Engineer

October 2010 - January 2012

[BBC iPlayer](#)

London, UK

Led performance optimisations of one of the UK's most performant services, supporting iPlayer. Visualised platform metrics and built versioned Rest API's for serving high-performance data. Paired on talk with Katherine Kirk at QCon 2012 on this team's agile journey.

Java C Perl MySQL memcached Database migrations Linux Solaris Rest TDD Pair Programming XP
DDD Ops Mocha Jira Mockito Hudson / Jenkins Splunk Database migrations Kanban WSDL jmeter
profiling Event driven architecture Virtualisation Automation Testing DevOps JPA

Senior Software Engineer

Trinity Mirror Digital Recruitment

July 2009 - October 2010

London, UK

Helped architect and scale a major job board. Performance optimisation of search and began migration to Spring.

JavaOO Perl / TT2SolrLucenePostgreSQLLinux production supportDatabase migrationsLucene optimisationMVCSalesforceApexHudsonMochaJiraImporting external modelsTDDPairingAutomation Testing

Software Engineer

Morgan Stanley

August 2007 - July 2009

London, UK

Designed and built high-performance ETL services to consume and publish market reference and timeseries data. Designed and implemented reactive credit spread software.

Multi-threaded JavaOO PerlJEEMQAbninitioSybaseTDDJMSProduction Support & DeliveryExernal API Integration & TestingAutomation TestingInternal Talks

Software Engineer

VisionOSS

November 2006 - August 2007

Green Park, Berkshire, UK

Short contract integrating a CMDB with CISCO VoIP hardware. Included automation testing using C#. Extended queuing system using C.

PerlCCISCO Call ManagerC# Test AutomationXML/XSLT/XSDPostgreSQLLinux Sys. AdminAutomation Testing

Senior Asset Control Developer

Abbey Financial Markets (Santander)

February 2005 - November 2006

London, UK

Implemented performant data-intensive applications and middleware for traders and internal systems. Created domain language in XML. Appointed to intra-department Architectural Governance committee.

Perl / inline-CC++ / STLCS#WSDLWebSphere MQJ2EESwingDDD SybaseJMSArchitectureSys. Admin & DBAMiddlewareTimeseries DatabasesWebShere MQAutomation Testing

Experienced Software Engineer

ING Bank

February 2003 - February 2005

Amsterdam, NL

Implemented performant data-intensive applications and middleware for front office traders and internal consumers.

LAMPPerl / inline-CC++ / gSoapSolarisSybaseOracleJ2EEMQJMS Sys. AdminHTML/CSSTimeseries DatabasesServletsAutomation Testing

Senior Software Engineer

Booking.com

February 2002 - February 2003

Amsterdam, NL

Developer number 4 and the first commit. Refactored original code to be more OO and normalised Database.

ModPerlinline-CLinuxFreeBSDMVCDatabase designMySQLPostgreSQLHTML/CSSAutomation Testing

Software Engineer and Systems Administrator

Codix.net

January 2001 - February 2002

London, UK

Worked as both a SysAdmin and Software Engineer, building and maintaining brand-name sites on bespoke projects.

PerlCJavaLinuxFreeBSDSolarisMySQLPostgreSQLHTML/CSSAutomation Testing

Junior Software Engineer

Sportingbet.com

February 2000 - January 2001

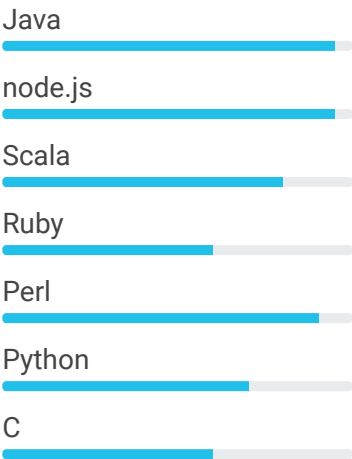
London, UK

Cutting my teeth in the commercial world building statistical interactive TV and web applications.

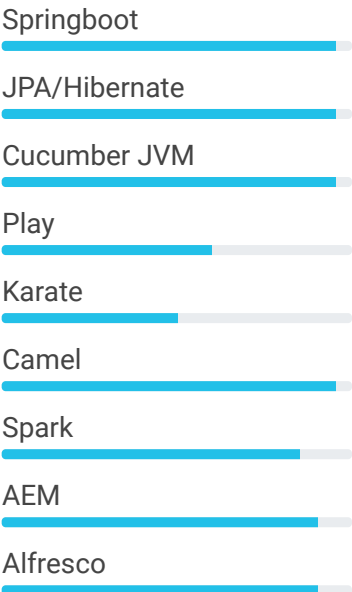
LAMPPerlHTML/CSSAutomation Testing

Professional Skills & Tools

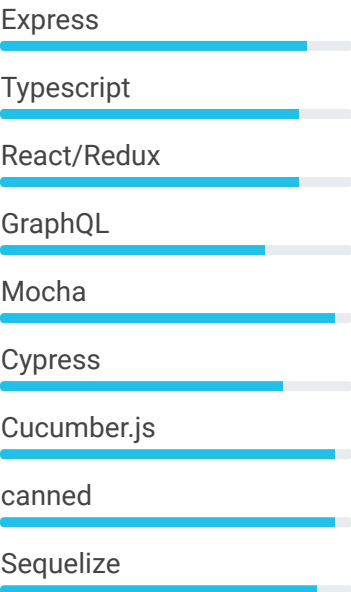
Languages



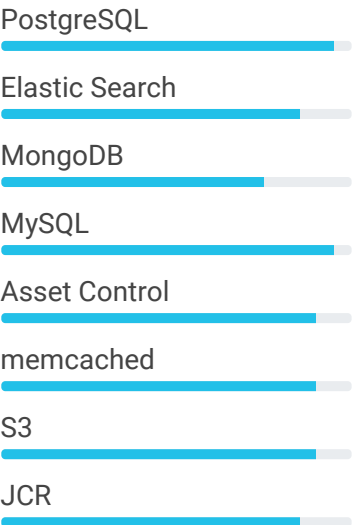
JVM Frameworks



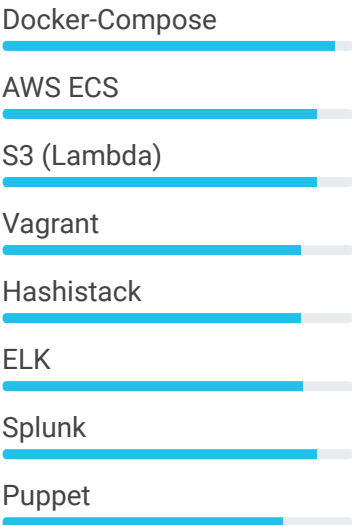
JS Frameworks



Datastores



Platforms



Holistic Leadership Skills

- Handson DevOps Coaching
- Handson Technical Coaching
- Handson Agile Coaching
- Lean/Kanban/Agile/LeanUX
- JVM and Fullstack polyglot
- Continuous Learner
- Technical Leadership
- Lean Architecture
- XP and Lean Development
- Facilitation
- Teaching
- Mentoring
- Business goal alignment
- Project Costing
- Turning failure into learning
- Creating cultures of psychological safety.
- Empirical technical improvement through measurement
- Technical Hiring

Relevant Education

BSc Hon. Computer Science and Artificial Intelligence University of Birmingham 1994 - 1999	Study in Continental Europe, ECTS Credits Dipartimento di Informatica, Università degli Studi di Pisa 1997 - 1998	ICP-ACC ICAgile Certified Professional - Agile Coaching Trained by Shane Hastie, Director of Learning at ICAgile 2016
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Interests

I am a homeschooling dad who is fascinated by the sciences as well as futurism🙌. I practice amateur astronomy in the night and love to go on coastal jogs during the day. My other life-long passion is music: I love listening to it as well as playing both the guitar🎸 and ukulele.

I enjoy writing engineering culture articles for InfoQ and regularly attending and contributing to conferences and meetups. Most notably, I gave a **talk** on different patterns of pair and mob programming at JSConNZ and a well-received **talk** *starting at 30'* on combating technical debt at QCon London. In recent years I've helped co-organise DevOpsDaysNZ which has brought me immense personal satisfaction.