# Ashley Hindmarsh - Curriculum Vitae - April 2024

Roles sought: Senior Java Software Engineer, Tech Lead, Team Lead (Freelance)

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- British Citizen
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- Current CV: http://www.bellesoft.uk/ash-cv/ashley.hindmarsh.cv.pdf
- References available upon request

# Summary

- Software development experience in small/medium/large commercial organisations, across multiple sectors media, commercial, publishing, banking.
- Happiest as part of an agile team, focussed on customer needs and delivering business value.
- Previously Tech Lead on key customer-facing systems for the BBC the power behind BBC iPlayer.
- Previously Principal Dev and Team lead on the award-winning BBC Video Factory portfolio bringing over a million hours of content to all devices.
- Recent, relevant experience in Agile and DevOps environments, continuous integration/delivery (CI/CD) to Cloud platforms.
- Ethos: Each line of code has an ongoing cost, so write as little as possible, and keep everything else tidy. Tests are first-class code: Testability is a major part of design.

#### **Technical**

## Development

- General: Object-oriented, with a functional mindset. Focus on using TDD/BDD to drive clean, maintainable code.
- DevOps: Containerization, (Docker/Kubernetes) to reduce distance between development and production.
- Distributed systems: Breadth of experience developing high-volume transactional systems, and the issues. Scalability via Kubernetes and use of message brokers e.g. Kafka, ActiveMQ.
- Java/JVM (10+ years): Oracle Certified Associate (Java 8). Spring ecosystem, Java (up to 21), Kotlin (1 year), Spring Boot, TDD/BDD (JUnit, Mockito, Cucumber-JVM), REST, Maven/Gradle.
- Perl (10+ years): "Modern Perl" OO (Moose, Plack) database apps, web services, data-processing (XML, JSON etc).
- Other dynamic languages: Python, Groovy, Javascript, Ruby (varying experience)
- Frontend: I've been working with Web UIs throughout my career. Now I mainly maintain rather than develop because it's a massive field in itself. So I'm fine with HTML, CSS, Javascript, Bootstrap, templating
- Relational databases: applications, schema design, query design and optimisation
- "NoSQL" databases and key/value stores (e.g. DynamoDB, Redis, Memcached)

# Delivery

- Distributed system architecture: observability, maintainability, API design, caching, volumetrics, microservices, performance testing.
- Design and maintenance for monoliths, microservices and message-oriented systems.
- Experience with migration projects both system and data migration, done over extended periods.
- Cloud (IaaS/PaaS):
  - AWS & Azure (architecture and implementation): Using comparable tech across both: Compute / Kubernetes / Queue / DB / IAM / Files / IaC
  - Experience with Azure Devops pipelines, deploying into AKS clusters, App Gateway, KeyVault.

- Security: PKI; OAuth2; SSO (OpenID Connect) hashing, encryption/decryption, signing/verification with XML standards, some exposure to SAML.
- Support software/systems: Jenkins, Maven, Gradle, Git, Jira, Confluence, Splunk

## Experience

Aug 2015-present: Contracting services t/a "Belle Software Ltd"

## Mar 2024 - Apr 2024

#### **Break**

Spent 5 weeks travelling with my wife and dogs through the UK, France and Spain after the previous contract was not extended.

## Nov 2023 - Mar 2024

## Senior Software Engineer at Currency Cloud (via OpenCredo - hybrid working)

- CurrencyCloud was looking to replace an proprietary API gateway, and address security issues coupled across the backend.
- My role was to investigate the use of the existing API gateway and security issues across the backend stack.
- To achieve this, I reverse-engineered documentation for the existing gateway and security protocols.
  - Also, I designed and helped to deliver a proof-of-concept gateway/security stack as a model for future development.
  - This also included making recommendations for the use of standards-based approach (e.g. OAuth2) rather than reimplementing old protocols.
- By the end of this period, there was a clear path for onwards development which involved a strategy for deprecating the old gateway in favour of the new model.

Contract was not extended because all project funding was removed after the first iteration.

#### Oct 2021 - Oct 2023

### Senior Software Engineer at 10x Banking (remote)

- Developed and maintained services to deliver specific customer-facing features for the 10x Banking platform, as part of multiple feature teams.
- Including core services Statement Generation, Customer Goals management, Customer Insights and Lending Products (Loans and Credit Cards).
- Gained a deep and detailed understanding of retail banking concepts and the increased sense of security and integrity required in this sector.
- Worked on a variety of products serving different business and customer needs, targeting a production workload of daily transactions for millions of customers.
- Mostly Java/Kotlin with Spring Boot, with Kafka, Postgres, Elasticsearch. Deployed via CI/CD to Kubernetes clusters in AWS. Exposure to Terraform.
- Responsible for coding features to agreed spec, with relevant E2E and unit tests, and attention to observability, load testing and other NFRs.

Contract was not further extended because of a moratorium on contractors. I was the last contractor out of 15 originally hired.

#### Oct 2018 - Oct 2021

#### Senior Software Engineer / Tech Lead at Tesco PayPlus (hybrid until Covid, then remote)

• Part of a backend team engaged in all parts of an independent sub-business of Tesco Bank

- Initially Senior SE, but later assumed a Tech Lead role, responsible for the ongoing maintainance and development of all backend software services supporting the business.
- Mentoring and supporting a team of devs to work autonomously and productively. Encouraging sharing
  of views and problems.
- Working with solution architect, product leads and other tech leads to design and implement solutions.
- Maintaining, updating and extending main backend services a programme of continuous renovation. Replacing proprietary systems with mature OSS solutions.
- Led a migration programme to exit end-of-life payment system, built using Python/Kubernetes.
- Main tech stack: Java 8, Spring, Tomcat, Jersey, Oracle, Cucumber. Deployed via CI/CD to Kubernetes on Azure (built from scratch), and also legacy systems.

Chose not to renew contract because the Payplus project was being wound-down

## Jan 2017 - Jul 2018

## Senior Software Engineer at Mendeley/Elsevier (on-site/London)

- Part of multiple cross-functional teams for Mendeley, through a major technology refresh.
- Acquisition and Onboarding: Migrating local Oauth2 sign-in to federated OpenID Connect solution.
   High-volume, mission-critical services.
- Building new services for flagship 'Reference Manager 2' product mix of client-facing and messageprocessing.
- Working mostly with back-end Java 8 development, in a microservice architecture with continuous deployment.
- Technologies used/learned: Java 8, Dropwizard, Kibana, Redis, TDD, BDD, Oauth2, OpenID Connect (OIDC), RxJava, Docker/ECS, Terraform, AWS, Payments integration (Adyen).

Contract not renewed because project was deemed complete

#### Nov 2015 - Jan 2017

## Senior Software Engineer (SEO) at Zoopla (on-site/London)

- Tasked with re-engineering of SEO support to support long-term transformation from a monolithic site to SOA; includes setting-up a permanent SEO engineering team.
- Developing internal SEO engineering platform and reporting framework, for a major website which relies hugely on organic SEO traffic.
- $\bullet \ \ Perl, Python, Google\ APIs, Google\ Analytics, AWS\ Redshift, Birst\ BI\ tools.\ Some\ HTML/CSS/Javascript.$
- Left the SEO team with a working, documented system that was handed over to perm developers.

## Aug - Nov 2015

### Java Software Engineer at Sky (on-site/London)

• Working within small Agile teams, developing high-volume Web services to support both OTT client-facing and back-end APIs.

## Aug 2008 - Aug 2015

# Principal Software Engineer / Tech Lead / Team Lead at BBC (onsite/London)

2014-2015: Team Lead / Principal Software Engineer - Media Services

- Led a new team, charged with reduction of both AWS costs and technical debt. Responsible for a mix of greenfield and legacy components.
- Design and build of components for the BBC's Video Factory. Video Factory ensures that BBC digital audio and video is available to users across a vast range of devices. Components are designed to be highly-available and scalable.

- Java (Camel/Jersey) applications, continuous integration (Jenkins), AWS in a devops environment. Extensive use of AWS (EC2/ELB/ASG,CloudFormation,S3,SQS,SNS limited exposure to DynamoDB and Lambdas).
- Working environment: Agile with Kanban("Scrumban"), TDD/BDD (Java/Ruby). Pair programming (where appropriate).

## 2012-2014: Principal Software Engineer - Publishing Services

- Development and maintenance of Java components for Video Factory (details above), and existing Perl components.
- Ongoing tech lead responsibility for selected iPlayer's core services then supporting 18 million+req/day.
- Designed and delivered a secure SAML gateway supporting the "BBC Store" and the "Xbox iPlayer" products.
- Organised coding "dojos" for TDD.

## 2008-2012: Technical Lead / Principal Software Engineer

- Design and delivery of "Media Selector 5" application in Perl; a business-critical, audience-facing service behind all iPlayer playback. Tech: Perl (Moose,Plack), XML/JSON, NoSQL (couchdb).
- Ongoing maintenance on existing related middleware and customer-facing services for BBC media delivery. Included major database migration (2012-2014); focus on data integrity, risk management and migration planning.
- Led the delivery of the playback mechanism for iPlayer 3G/iOS product (Dec 2011).

#### 2007 - 2008

# Senior Software Engineer at CAIW Netwerken (hybrid/Netherlands)

 Maintaining Perl middleware services; reverse-engineered SOAP/WSDL contract from Perl source code for Java clients.

## 2005 - 2007

### Senior Software Engineer at Semantico (on-site/Brighton)

• Developing new client sites (e.g. www.blackwellreference.com) in Perl using Semantico's backend CMS and access management technology.

## 1999 - 2005

### Senior Software Engineer at Best Scarper Ltd

• Providing freelance software engineering services through my own limited company. Multiple clients. Mainly Perl/Web.