

Christopher James Nappin

I am a highly experienced Software and Cloud Architect with very strong “hands-on” skills in software development and DevOps automation. I have designed and overseen the successful delivery of solutions ranging from large-scale public sector citizen-facing services with tens of millions of users, to small-scale private sector startup products built rapidly for MVP pilots.

I am highly capable working as a senior developer or senior platform engineer tackling the most challenging technical tasks, or as a team leader planning agile backlogs and mentoring others in engineering best practices such as code design, TDD, CI/CD and automation techniques, or as an architect designing modern microservice-based serverless and cloud-native systems. The breadth and depth of my technical skills and experience enables me to pro-actively add value in all scenarios, and to rapidly learn new skills and technologies.

Active UK Government security clearance details available on request

Technical Skills

Architecture <i>20 years</i>	Solution, Software, Cloud/DevOps, Integration, Data Architecture. Good knowledge of Web, Mobile, Microservices, Serverless, Messaging/Event Driven, networks, security, performance, resilience, scalability. Experienced with greenfield, brownfield, cloud migrations, technology refreshes, governance, planning, estimation, bid proposals. Agile/Evolutionary/Lean/Domain Driven Design approaches
Programming Languages <i>30 years</i>	Assembler, C, C++, Go, Groovy, Java, JavaScript, Perl, PL/SQL, Python, Ruby, Scala, Shell Scripting, Typescript, XSL Strong skills in functional, object-oriented, and asynchronous programming
DevOps <i>10 years</i>	Cloud IaaS/PaaS/SaaS, AWS, Azure, Terraform, ARM & Bicep, CloudFormation, Docker, Chef, Puppet, Vagrant, Packer, Jenkins, Azure DevOps, GitHub, GitLab, Pipelines, CI/CD Build/Test/Release automation

Professional Qualifications

12/2023	HashiCorp Certified Terraform Associate
12/2023	Microsoft Certified Identity and Access Administrator Associate
05/2021	Microsoft Certified Azure Fundamentals
09/2017	Amazon Web Services Certified Associate Solution Architect
08/2015	Amazon Web Services Technical Professional
08/2015	Amazon Web Services Business Professional
12/2012	Certified Scrum Master
11/2005	JBoss Certified Application Server Administrator
04/2004	Sun Certified Java Web Component Developer
05/2002	Sun Certified Java Programmer

Education

1993 – 1996 Manchester University
Awarded 2:2 BSc (Hons) in Computer Science

1988 – 1993 Hall Cross School, Doncaster
'A' Levels: Economics (A), Mathematics (B), Physics (B), General Studies (B)

Career History

9/2023 – Contracting (Nappin Consulting Ltd)

9/2023-3/2024 Azure Architect, Storm ID

Working directly for the Head of Digital Architecture within COPFS (Scottish Crown Prosecution Service) on project governance, technical policy and best practice, and maturing use of Cloud prior to initial business-critical production services going live. Reviewed existing designs and facilitated Non-Functional Requirements for in-flight projects. Defined organisation-wide policies for naming, tagging, and backing up Azure infrastructure, rolled out for supplier use. Planned migration roadmap to Azure Landing Zone and introduce Infrastructure-as-Code/DevOps approaches. Documented network topology, and how to remediate to meet Microsoft best practice (Hub/Spoke). Reverse engineered centralised infrastructure into Terraform and implemented remediations. Investigated project infrastructure (Bicep), resolved issues and configuration drift, proposed architecture improvements (options papers) to save costs and reduce complexity.

Technologies: Microsoft Azure, Azure DevOps, Terraform, Bicep, Go, Azure Landing Zone

5/2017-8/2023 BJSS, Nottingham

Technical Architect

Application Architect, Online Betting – Re-write of a real-time data processing system for regulatory compliance. Documented the architecture, high level design and detailed data flows, overseeing the delivery team - setting technical standards, implementation patterns and unit test approach using Go. Mentored the team in TDD, performance tuned use of Kafka, and coded various parts of the solution including exemplar microservices and tests.

Technologies: Linux, Go, Apache Kafka, Microsoft SQL Server, Transact-SQL, GitLab pipelines

Lead Architect, DVSA project - Client-side role post go-live providing governance over all supplier architecture and design changes. Facilitated supplier and Microsoft teams to resolve various critical issues, researched, championed, and oversaw the resolution of capacity issues with various third-party systems, introduced performance testing and capture of Architecture Decisions Records (ADRs).

Technologies: Microsoft Azure, Node.js, Typescript, ARM templates, Dynamics/Power Platform/CRM, Azure DevOps

Technical Lead, Start-up - Greenfield data-science product for Social Housing sector, working directly with client's CTO and Product Management team. Architected the product - serverless data pipeline and back end, SPA front end, temporal data managed with MariaDB and AWS QuickSight – personally implemented all AWS Infrastructure using Terraform, and lead the small team delivering successfully to challenging timescales.

Technologies: AWS (Lambda, API Gateway, Cloudfront, S3, Cognito, QuickSight), MariaDB (temporal), Python, Terraform, GitHub

Application Architect, DVSA – Technical lead for legacy application support team, designed and oversaw functional enhancements and technology updates, introduced a range of more modern technologies and techniques to the legacy systems, especially around automated builds and unit testing, created a Tech Debt reduction roadmap, introduced an end-to-end functional test suite.

Technologies: AWS, Java, JUnit/Mockito/AssertJ, Selenium, Gauge, Maven, Oracle database, JMeter, Jenkins, GitLab

Project Architect, DVSA – Application and Infrastructure Architecture for a project to digitise the practical driving test, including hybrid mobile app, serverless backend microservices

and legacy system integrations. Technical lead for 2 scrum teams, involved in all aspects of software development, automated testing, and infrastructure as code. Successfully met all client governance (architecture boards, GDS Alpha and Beta assessments), and personally coded some essential components within the microservice architecture.

Technologies: AWS (API Gateway, Lambda, DynamoDB, Data Migration Service), Terraform, MariaDB, Node.js, Typescript, Ionic/Cordova, iOS, Jenkins, GitLab/GitHub

DevOps Architect, DVSA – Infrastructure Architecture and hands-on Platform Engineering for a large cloud migration project, also co-ordinating successful migration of third-party interfaces, infrastructure security measures, and team Scrum Master.

Technologies: AWS, Terraform, Puppet, Packer, Ruby, Java, Wildfly, Jenkins, GitLab

Performance Testing and Test Automation, DVSA – Maintained and executed Performance regression test suite, designed, and oversaw expansion of a new functional test suite to aid the client's progress towards continuous delivery.

Technologies: AWS, Linux, Java, Cucumber, Selenium, MariaDB, Jenkins, Ruby/Sinatra, JavaScript, JMeter, GitHub

12/2014-5/2017 Computer Sciences Corporation (CSC), Mobile Worker

Advisor Solution Architect, Customer Solution & Programme Delivery

Cloud Performance consultancy, NHS Supply Chain (DHL) – Analysis of Application and Infrastructure Architecture for a set of co-located Microsoft .Net applications, providing tactical and strategic options to address performance, scalability, and maintenance issues.

Various assignments, Amey – Planning application and infrastructure data centre migration, remediation, and testing, for a large portfolio of highly inter-dependent COTS and bespoke (Microsoft) systems and shared databases. Worked within client Solution Architecture team, led Client Workshops and planned solution evolution for a mobilisation contract, and designed BizTalk interfaces for client and supplier teams to develop.

Various assignments, Network Rail – leading Solution Architecture team for a large Asset Management migration project, successfully achieved approval of solution design involving integration of COTS products, bespoke components, and data migration. Also successfully bid and designed a range of infrastructure and application projects, revising legacy bespoke systems.

Various assignments, Metropolitan Police Service – requirements analysis and infrastructure design for a range of remote access and application virtualisation projects (Citrix), infrastructure virtualisation (SQL Server), overseeing Infrastructure Architects and co-ordinating Tower/SIAM/Client design assurance process.

Created Agile and DevOps training courses for CSC UK Architect and BA teams.

7/2007-11/2014 Capita Group, Derby/Nottingham

Senior Technical Architect, Application Services

Leading a team of Architects, Business Analysts and Consultants, then moved into a more “hands-on” Senior Architect role. Bid, designed, and oversaw the successful delivery of a range of large complex public sector projects for DVSA and NHS. Recruited, mentored, and managed teams of permanent and contract developers, helping the company to flex to meet fixed timescales. Designed loosely coupled systems that successfully evolved, refreshed, and expanded over the long term. Introduced technical standards, TDD, CI/CD, to massively raise the quality of delivered solutions. Defined cross-government interfaces (with DVLA), became SME and trusted advisor for DVSA systems, including prototyping new capabilities.

Technologies: Unix, Windows, UML, Java EE, SAML, Web Services, Oracle database,

PL/SQL, Spring Framework, Hibernate, WebLogic/JBoss/Wildfly application server, Apache Web Server, JavaScript, JUnit, Groovy, CruiseControl, Jenkins

6/2004-6/2007 ABM UK, Nottingham

Technical Architect

Hands-on Java Architect for a new suite of products aimed at the Police and Retail sectors. Helped the company move to new technologies, introduced Test-Driven Development and Continuous Integration, mentored the development team, provided formal training to new graduate intake, planned/estimated/designed modular product releases, optimised and tuned performance, managed development environments.

Technologies: Unix, Linux, Windows, UML, Java/J2EE, Web Services, Oracle database, Spring Framework, WebSphere/Oracle/Tomcat/JBoss application server, Apache Web Server, JavaScript, XML/Schema/XSLT, XSL-FO/Apache FOP, JUnit, CruiseControl.

11/2000-6/2004 Morse Group, Derby

Senior Developer

Senior/Lead developer on a range of web applications for Houses of Parliament, Scottish Legal Aid Board, Vodafone, Orange, Birmingham City Council. Helped to deliver complex projects using XP/TDD/CI/RUP, provided specialist content management consultancy to clients, mentored team members, managed development environments.

Technologies: Unix, Linux, Windows, Java/J2EE, Oracle/SQL Server database, WebSphere/WebLogic/Oracle/iPlanet/Tomcat/JBoss application server, Apache Web Server, Squid, HTML, WML/WAP, XML, JUnit.

3/1998-11/2000 Inter-National Research Institute (INRI) UK, Southampton

Senior Software Engineer and Webmaster

Development of distributed soft real-time military applications, (internal) corporate webmaster, (client-facing) web consultancy. Expanded the company's product range, helped the company expand into web consultancy.

Technologies: Unix, Linux, Windows, C/C++, X Windows, MFC/COM, Apache Web Server, CGI/Mod-Perl, MySQL, HTML/CSS, JavaScript.

9/1996-3/1998 Siemens Plessey Systems, Christchurch

Software Engineer

Development of safety-critical, soft real-time military and Air Traffic Control systems. User interface and 2D graphics specialist, and managed departmental Intranet.

Technologies: Unix, X Windows, C, Ada, Apache Web Server, HTML, JavaScript.

Hobbies and Interests

Running (member of a local running club), travelling, music and reading.

Open-Source development, upskilling in new technologies (<https://github.com/chrisnappin>)

Holder of a full driving license