



James Macmillan

SENIOR SOFTWARE ENGINEER

✉ james@codesthings.com

📄 codesthings.com

🔗 github.com/jamescodesthings

🌐 linkedin.com/in/jamescodesthings

📍 Birmingham, UK

Availability: Immediate

Senior Software Engineer with 14 years building web, mobile and cloud platforms, from native mobile integrations to serverless APIs and pipelines handling over a million releases a day. I work across the stack, get productive on new languages quickly, and care most about shipping robust software that the people using it actually need.

Experience

a. Mar 2023 - Aug 2026

Songtradr

Cloud-native music ingestion at a million releases a day

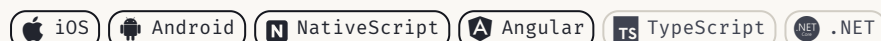


- Re-engineered release ingestion after our Kafka provider shut down and every alternative cost 2x or more. Moved it away from Kafka and lifted throughput from ~250k to 1M+ releases a day.
- Rescued a stalled search rebuild that had reached 30s+ per query, rewrote it on OpenSearch around the real requirements, and retired the legacy Solr service with sub-second, high-quality results.
- Built, migrated onto and ran a master metadata store, from tooling and feature work to ongoing maintenance. It took load off a legacy database costing ~\$30k a month and rising, and now backs the platform's APIs.
- Ran 5-7 knowledge-share talks on adopting AI coding tools (risks, mitigations, tooling and good practice), starting with a group of ~10 peers and widening out across engineering.
- Contributed to security, platform design, support and data analysis across the wider engineering organisation.
- Worked XP-style with daily remote pairing.

b. Jul 2020 - Feb 2023

Engineius

Robust mobile and web development with the users' needs at heart



- Revived an outsourced NativeScript and Angular app that crashed in 80-90% of sessions, taking it to 99.9%+ crash-free and redesigning it end to end with the contractors, third parties and end users who relied on it.
- Wrote native Android and iOS integrations for GPS, camera, background services and permissions in Java, Swift and Objective-C, published as [open source NativeScript plugins](#).
- Kept the apps in step with mobile platform standards, staying ahead of major ecosystem changes such as Apple's WebView deprecation.
- Split the customer portal into an Angular SPA and a .NET API, fixed a vendor bundle that loaded dependencies twice and added lazy-loaded routes, cutting dev builds from 5+ minutes to 30 seconds.
- Hired and mentored new engineers, getting them shipping features quickly.

c. Nov 2017 - Jan 2020

Packt

Making the learning platform mobile, and going serverless

 Node.js  AWS  Serverless  Angular  Capacitor

- Brought the subscription learning platform to mobile from a standing start: CI/CD, infrastructure, brand implementation, and the processes and guidelines to develop the web platform and app side by side.
- Got the app through Apple review and kept it passing, with testing and monitoring covering changes shipped to web and app at the same time. The app reached ~3k installs.
- Migrated the backend to serverless microservices on AWS in the early days of serverless, growing to ~250 Lambda functions in production.
- Mentored developers joining software engineering from other careers, and raised standards with a large offshore team.

d. Sep 2012 - Oct 2017

Severn Trent

Web and Mobile Support and Development in a FTSE 100 Company

 Java  .NET  Node.js  Angular  TypeScript  Android  iOS

- Built and supported a large estate of customer-facing and internal web apps in Java (Spring, Play) and C# .NET on SQL Server.
- Integrated card payments into customer-facing and internal applications across the estate.
- Front-end lead on the Customer Portal redesign.
- Part of the company's early mobile development: built cross-platform and native Android and iOS apps, and set up Mobile Device Management and the infrastructure behind it.

Skills

I choose tools for the problem and get productive on new stacks fast. These are the ones I've used most in production.

Back end & cloud

 Node.js  .NET  GCP  AWS  Terraform  Docker  Serverless

Languages

 JavaScript  TypeScript  C#  SQL  Java  Python  Lua

Data

 SQL Server  Elastic  PostgreSQL  MySQL  MongoDB

Mobile

 iOS  Android  Ionic  Capacitor  NativeScript

Front end

 React  Angular  Tailwind  StencilJS  HTML5  CSS3

CI & build

 GitHub Actions  TeamCity  Make  Ant  >_ Shell (zsh, Bash)

Outside work

The same habit outside work: find a gap, build the thing, and put it in front of real users.

Photography

Designed the CampSnap Pro filter packs, free retro film looks used by photographers worldwide.

3D design & FPV

800+ downloads on MakerWorld, mostly FPV drone parts like the Dome whoop canopy, rated 4.9 from 43 reviews.

Hardware tinkering

Handheld Linux and Pico-8 builds, keyboard firmware, and mods for my own FPV kit.

Education

Coventry University

Sep 2009 - Jun 2012

BSc Computer Science G400, 2.1 with Honours

Caroline Chisholm School

Sep 2002 - Jun 2009

3 A Levels Including Computing

11 GCSEs