Nathan Birrell

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ABOUT ME:

Software Engineer with over ten years of experience, from some of Australia's largest companies to small teams in fast-growing startups.

Currently motivated to continue developing my abilities in team leadership, beyond those of an individual contributor. Open-minded engineer who typically thrives in empowered, multidisciplinary teams with a strong sense of purpose.

I also enjoy 🏄 surfing, 🚲 bicycles and ☕ espresso.

KEY SKILLS:

1. Specialised frontend experience across React, Typescript, NextJS & CSS
2. Strong backend commercial experience with Node, GraphQL Yoga & Express, REST, both RDBMS & NoSQL
3. Solution architecture on AWS Lambda, ECS, AppSync, DynamoDB, CDK/SAM
4. Focus on maintainability, through unit testing, linting, E2E testing & CI
5. Agile SCRUM software delivery

Experience

Stax (by Versent)   FRONT-END LEAD (PLATFORM) • OCT 2018 - PRESENT

Stax is an AWS cloud management platform, exists to empower teams with consistency, confidence and velocity. [View the landing page →](#)

- Ownership of long-term strategy for a production frontend application (20k+ LOC), a component library, style system and a backend API service (60k LOC)
- Led the architecture and build for a backend-for-frontend project, to bring multiple microservices together for the client-side
- Set-up strong foundations early for maintainability with unit testing, linting, CI processes and written documentation for a growing team (from 2 project contributors to 15 at peak)
- Improved quality through implementation of an automated end-to-end test solution to catch regressions
- Increased style consistency across multiple frontend projects with a style system and component library
- Mentored and supported junior engineers, helping them grow their skills and confidence through pair programming, code reviews and leading workshops
- Tech: Typescript, GraphQL, Apollo, React, Jest, Playwright, NodeJS, AWS Lambda, AppSync, DynamoDB Serverless, SQS, SAM, CDK and more.

Bureau of Meteorology   SENIOR SOFTWARE ENGINEER • MAR 2018 - OCT 2018

- A new weather experience for the general public audience — in Australia's [top 30](#) most visited websites
- Improved our application's reliability with a strongly-typed, tree-structured state management library
- Worked with junior engineers to improve reusability and maintainability through smart component abstraction and separation of concerns
- Tech: Typescript, React, Mobx with mobx-state-tree, Service Workers, Jest/Enzyme, ES6+, styled-components.

Belong (by Telstra)   FRONT-END ENGINEER • NOV 2016 - MAR 2018

- Responsibilities including onboarding new engineers, improving unit test coverage
- Migrated a legacy Knockout/JQuery codebase to a more manageable React/Redux project
- Tooling: React, Redux, Webpack, ES6/Babel, React server-side rendering, Expo and React Native.

Deloitte Digital   FRONT-END DEVELOPER • JAN 2014 - NOV 2016

- Agile SCRUM delivery for clients such as Telstra, ANZ, Herbert Smith Freehills, RACQ, VCCC and QSuper
- Regularly presented ideas back to the wider Frontend Practice, participation at MelbJS, LASTConf, MelbCSS

Side Projects & Volunteering

Leesy (Startmate S23)   2023

- Advised a local startup, on their tech strategy and helped build out their MVP web application
- Managed contractor delivery, set up CI/CD pipelines and helped refine their tech roadmap
- Implemented NextAuth for authentication, with simple role-based access control
- Tech: Typescript, Node JS, Vite with SSR, Next Auth, Express, GraphQL Pothos & Yoga, PostgreSQL, AWS ECS, Fargate, ELB

Soulection 24/7 Radio App   2021

- A radio app to stream random Soulection Radio episodes 24/7
- Included some Apple Music-style blurry animated backgrounds that match the episode cover and tablet-drawn player controls
- A great chance to experiment with Tailwind CSS, drawing vectors on iPad and integrating with SoundCloud's API

TourXOz (for the Black Dog Institute)   2019

A cycling trip from Cairns to Cape York, through some of Australia's most remote country to raise awareness for mental health and engage with local communities. Donations supported the Black Dog Institute.

Overcast for macOS   2017

A macOS client for the popular Overcast podcast player, with over 130 stars on Github. Built with Electron and Node.

Poseidon   2017 - 2018

A hobby project built with Ruby on Rails and a create-react-app + Typescript frontend. The goal: to improve the experience around surf forecast modelling. We had some fun challenges around presenting graphs and numerical data in a user-friendly way; storing and parsing model data and calculating a "Surf Potential" figure. Multiple third-party integrations involved (ie: NOAA, BOM).

Education

Royal Melbourne Institute of Technology (RMIT University) (2012 - 2015)

Bachelor of Business (Information Systems) (Applied) (minor in Marketing)