Nathan Birrell

🇦🇺 Melbourne, Australia | Web | Github | Linkedin | nathanbirrell@gmail.com | September 2023

ABOUT ME:

Full-stack Software Engineer with over ten years of experience with some of Australia's largest companies. **Specialised in modern front-end web application development**, particularly with React and Typescript, but also have years of commercial experience with a range of backend tooling.

Not attached to any specific technology or framework, always open to new ways of working. Typically thrive in empowered, multidisciplinary teams. Keen interest in process, written/async communication and improving the way teams work.

KEY SKILLS:

1. React, Typescript, GraphQL & CSS
2. NextJS, Vite with SSR, Webpack and create-react-app
3. Apollo GraphQL and various state-management libraries (MobX & Redux)
4. Jest & testing-library for unit testing, Playwright for E2E tests
5. GraphQL, Node.js, Express, Prisma ORM and Postgres
6. AWS services like Lambda, ECS, AppSync, DynamoDB, CDK/SAM

Experience

Stax (by Versent)   SENIOR SOFTWARE ENGINEER • OCT 2018 - PRESENT

Stax is an AWS cloud management platform, which exists to speed-up and improve the quality of cloud infrastructure delivery.

- As a Senior Software Engineer with a focus on front-end, I work on building and managing strategy around our frontend applications.
- Responsible for both the single-page app (client side React app) and our backend-for-frontend app which consists of an AppSync API, NodeJS/Typescript Lambda resolvers, SQS Queues and more.
- Tech: Typescript, GraphQL, Apollo, React, Jest, NodeJS, AWS Lambda, AppSync, Serverless, CDK, etc.
- Some challenges include: managing style consistency across multiple separate frontend projects and teams; having frontend engineers manage their own backend-for-frontend (our AppSync GraphQL API) and wrangling client-side state to present long-running cloud tasks.

View the landing page at stax.io →

Bureau of Meteorology   SOFTWARE ENGINEER • MAR 2018 - OCT 2018

- Worked on a project team to build a completely new weather experience for BOM's general public audience. One of Australia's top 40 websites by traffic.
- Tooling: Typescript, React, Mobx with mobx-state-tree, Jest/Enzyme, ES6+, styled-components.
- Interesting challenges included managing tree-structured state and weather datapoints; finding the right abstractions for reusable components; and working with a moderate-sized team to agree on long-term technical decisions

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

Mid-level Front-end Developer on a React/Redux/Webpack web application. Key activities:

- Tooling: React, Redux, Webpack, ES6/Babel, server-side React rendering, Expo and React Native.
- Onboarding new developers, maintaining Jest unit testing coverage
- Migration of our legacy front-end app out of an old Knockout/JQuery project to a more manageable React/Redux ecosystem.

Deloitte Digital

Website and web application builds for clients such as Telstra, ANZ, Herbert Smith Freehills, RACQ, Victorian Comprehensive Cancer Centre and QSuper.

Front-end feature development in SCRUM delivery teams:

- Regularly owned front-end estimation and delivery of user stories end-to-end with considerable complexity and time constraints.
- Focussed on improving quality through: objective architectural decisions and discussion, sharing ideas for writing readable and maintainable Javascript and presenting ideas back to the wider FED team.
- Assisted product owners, designers and UX to design solutions that maximise business value from more effective development effort.
- Attended conferences and completed training such as: Deloitte FED training (mostly React & Angular), Pluralsight courses (i.e. Crockford's JS Good Parts) and meetups/conferences (MelbJS, LASTConf).
- Helped design/introduce a feature-based Git workflow ('git flow') for multiple clients.

Side Projects & Volunteering

Leesy (Startmate S23)   2023

Advised a local startup, on their tech strategy and helped build out their MVP web application. The project took advantage of modern Node and Front-end tooling, like Typescript, Vite with SSR, Express, GraphQL Pothos & Yoga, PostgreSQL and all on AWS.

Soulection 24/7 Radio App   2021

As a Soulection Radio listener, I made a little radio app to stream random episodes 24/7. It included some Apple Music-style blurry animated backgrounds that match the episode cover and tablet-drawn player controls. This project was great to experiment with Tailwind CSS, drawing vectors on an iPad and integrating with SoundCloud's API.

Open the project on Github →

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.

Open the project on Github →

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)