

# Thomas Alker

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## Summary

A highly accomplished and delivery-focused **Tech Lead** with **10+ years** of experience specializing in architecting and delivering scalable, event-driven, full-stack applications. Expert-level proficiency in the **TypeScript** ecosystem (**React, Node.js, Vue**) and cloud-native services, primarily **AWS** (Lambda, SQS, DynamoDB, EventBridge) and **GCP** (Firestore, Functions), to build scalable, event-driven architectures. Proven track record in modernizing monolithic architectures and leading engineering teams, championing best-practice standards (**Hexagonal Architecture, CI/CD, Observability**) using tools like **SST, NX, Docker, Vite/Vitest**, and **Sentry**. Expertise extends to data orchestration with **MySQL, Redis**, and **ElasticSearch**, including specialized knowledge in **Algolia** search integration.

## Employment History/Experience

### Tech Lead

Partful: December 2024 - Present

- **Technical Leadership & Agile Execution:** Led the EPC engineering team as Tech Lead, managing flexible priorities to balance client needs with core delivery and value focus.
- **Infrastructure & Cloud Modernisation:** Migrated monolithic apps to 3 domain-based monorepos (NX) and rebuilt environments using serverless AWS infrastructure (SST).
- **Software Architecture & Observability:** Implemented Hexagonal Architecture for secure decoupling of core EPC logic. Established robust observability standards with granular Sentry spans for tracing asynchronous events and API performance.
- **Stakeholder & Incident Management:** Primary technical escalation point for P1/P2 issues; protected team focus by challenging undocumented requirements.
- **Event-Driven Architecture & Global Search:** Architected a highly scalable global search service using AWS EventBridge and DynamoDB Streams to process OEM CAD/Sales BOM changes. Designed consumption patterns to sync data into Algolia for instant part identification.

### Senior Software Developer

Partful: October 2023 - December 2024

- **Served as a technical sounding board** for the team, guiding less experienced and junior members through complex debugging sessions and high-level system design decisions to foster independent problem-solving.

- **Pioneered a "Small PR" philosophy** by coaching the team to decompose monolithic epics into granular, vertically-sliced user stories, reducing average pull request lifecycle time from an average of 3 days to under 2 hours.
- **Facilitated technical refinement sessions** to break down ambiguous requirements into actionable tasks, ensuring high-confidence estimates and reducing "mid-sprint surprises" by identifying edge cases early.
- **Improved project predictability** by challenging the team to define clear Definitions of Ready and Definitions of Done, preventing scope creep and ensuring consistent delivery cycles.
- **Championed rigorous board hygiene** within Jira, ensuring all tickets maintained accurate statuses and documentation, which provided stakeholders with real-time visibility into project health and progression.

## Senior Software Developer

+24 Marketing: March 2023 - October 2023

- Manage and define projects from initial client meetings to end delivery.
- Mentor and provide support to colleagues across teams to develop their skills via SMART goals for each team member.
- Scope projects tasks and develop bespoke software for clients based on the brief given by clients.
- Rebuild existing legacy eCommerce systems using modern technology stacks and implement migration strategies such as strangling the monolith to move towards microservice .
- Built a proprietary IoT platform using AWS technologies and assisted in development of bespoke PCB boards.
- Develop and improve internal processes within the team to create stronger scope of work documents and reduce the amount of change requests.

## Tech Team Leader (Senior Full Stack Developer)

Singletrack Magazine: October 2022 - March 2023

- Coordinated interdepartmental communication with key stakeholders to maintain progress towards completion of objectives and customer value.
- Managed and led projects to completion by working with management from other departments.
- Facilitated and coordinated communication with different department heads to produce clearly defined scope of work.
- Worked to strict deadlines and ensure the team meets quarterly targets.
- Provided 1:1 reviews with team members to aid performance and skill development. Mentoring the team was done via setting individual SMART goals for each team member.
- Organised and led team meetings.
- Organised, coordinated, and reviewed code for deployments.

## Full Stack Developer

Singletrack Magazine: October 2017 - October 2022

- Designed, developed, deployed, and maintained the company website.
- Worked with the Art Director to implement a redesign of the website in alignment with the brand guidelines.
- Implemented an ML model to stop spam posts which led to only one spam post not getting moderated in over 2.5 years.
- Continuous optimisation of the website to maintain Core Web Vital scores crucial for SEO rankings.
- Improved site performance by using technologies like Redis as an object cache layer to decrease page load times.
- Managed and provisioned internal networks (routing, switching, security).
- Provisioned on-premises hardware (rack servers, peripherals).
- Provisioned and maintained cloud resources (VMs, load balancers, VPCs).

## iOS & Android App Developer

Singletrack Magazine: June 2014 - October 2017

- Developed and published an iOS app written in Swift and an Android app written in Java & Kotlin.
- Worked with management and creative teams to design an app inline with brand guidelines.
- Worked with the web development team to develop RESTful APIs for app integration.
- Monitored app performance using Firebase Crashlytics.

## Professional Development

- AWS Community Summit Manchester - 2025
- Google I/O - 2017, 2018, 2019, 2020, 2021, 2022
- Google Cloud Next - 2019, 2020, 2021, 2022

## Interests

- **Electronics:** Developing home automation and building systems utilizing ESP32/ESP8266 microcontrollers
- **Sports & Fitness:** Snowboarding, NFL (American Football), Tennis, Badminton, and Walking.
- **Hobbies:** Warhammer and various board games.

## Education

- BSc (Hons) Computer Science - 1:1
- Team Leader Level 3 - Apprenticeship Standard
- A-Levels: Computer Science, Graphic Design, Physics
- 16 GCSEs including Math, English, and Science graded A\* - C