Adam Worrall

Software Leader

Santa Cruz County, CA
adam@worrall.io, linkedin.com/in/abworrall
Personal projects: github.com/abworrall, skypies.org, stop.jetnoise.net

SUMMARY

I love software systems, and have spent my whole career with them. I have experience building software-as-a-service, enterprise backbones, shrinkwrapped software, internal tooling, cloud apps. I've built small teams from junior engineers, small orgs from senior engineers, and managed large cross-functional orgs.

EXPERIENCE

Career break

Apr 2022 - PRESENT

- Left Google to hike the Pacific Crest Trail in 2022 (pct.worrall.io)

Google, Mountain View CA - *Senior Engineering Manager, Google Cloud Kubernetes Node*

Oct 2016 - Apr 2022

- Kubernetes is an open-source project, launched and driven by Google, that has become the world's default way to run workloads. It has displaced virtual machines to become the solution for 'enterprise compute'.
- Google Cloud Kubernetes is a managed Kubernetes delivered by Google. Anthos is another managed Kubernetes from Google; different flavors of Anthos run in places other than Google Cloud, notably on-premises.
- The Kubernetes Node team (10-16 members) was responsible for the bedrock feature of Kubernetes: run containers on nodes, as directed, reliably. The team was responsible for how containers were executed, how they were allowed to interact with the underlying OS, and preventing bad containers from breaking the node. Interesting problems here involved managing GPU resources, operating system images and packaging, Linux internals, and Microsoft Windows Containers.
- The team were world-renowned experts in their field. We had to balance providing leadership and service to the open source Kubernetes community in SIG-Node, and working on Google Cloud's proprietary-but-OSS managed Kubernetes service.
- The team was tasked to take over the just-launched Anthos-on-VMware system. This was another managed Kubernetes, supported by Google but running in the customer's environment on top of VMWare. This product, not running inside Google's environments, was very unusual and challenging for a Google team.
- I also founded and built a team to build Anthos-on-AWS, a managed kubernetes that runs on top of Amazon's cloud.

Google, Mountain View CA *- Senior Engineering Manager, Chrome Infrastructure*

Oct 2014 - Oct 2016

- Chrome (Chromium) is a leading web browser that runs on a wide range of platforms. It is also an open-source project with 2-300 commits per day, each needing 20-30 serialized hours of dedicated testing across all of Chrome's platforms (OSes, phones, tablets, chromebooks, GPUs, etc), with an SLA to deliver test results to developers in under 30 minutes.
- I led a team of 30 engineers across many sites and time zones who were dedicated to the infrastructure and hardware labs needed to deliver services for source control, test, and build.
- Key challenges involved establishing team structure, ensuring engineers had work that could meet career aspirations, while providing the services that underpinned all of Chrome. Part of this was promoting a team mission for general purpose software and services that could be used more widely across Google.

Google, Mountain View CA *- Engineering Lead, Hotel Search Personalization*

Apr 2013 - Oct 2014

- After moving to Mountain View, I explored ways to use personalization in Google's hotel search. This was a great opportunity to learn key parts of the Google stack from the bottom up, and how to work across multiple teams and orgs within Google. The execs involved ultimately decided not to proceed with personalization at this point.

Google, Mountain View CA *- Engineering Manager, Reservations Systems by Google*

Apr 2011 - Apr 2013

- ITA Software was acquired by Google in 2011.04, primarily for the other half of the company (airfare pricing and shopping). I worked with the Google mergers & acquisition team to onboard ~140 people into Google.
- We succeeded in an initial launch of our airline Reservations and Departure Control systems in 2012.02 that went so smoothly that passengers did not even know anything was happening, which was a huge achievement in the airline industry. These launches are challenging because they are always knife-edge, always with a fixed deadline, and always have a huge amount of data to migrate in a very short time window.
- My main focus during this time was making our org more Googly, and figuring out how to retain our talent now that they were able to easily transfer to exciting projects across Google.
- Google ultimately shut down the reservations project in 2013.04, at short notice. This triggered a very busy period to find new homes for the whole team within Google, while maintaining contractual obligations to our customer.

ITA Software, Cambridge MA - *VP of Engineering, Ops and QA, Reservations Systems*

Feb 2009 - Apr 2011

- Reservations and Departure Control are the two mission-critical software systems that every airline depends on. ITA Software developed modern, extensible, fully-featured versions of these systems, allowing airlines to move on from the mainframe era. These systems are characterized by huge amounts of business logic, demanding performance and availability needs, and extensive integration throughout the airline's other IT systems (typically 100-300 other services, most bespoke).
- I led the ~140 person organization that developed and deployed these systems.
- My main contributions were (a) establishing a tech-first organization and project methodology that the engineers fully bought into, leading to a timeline that both the the dev team and the customer believed in (and which we met, on-time), and (b) empowering tech leads across the org and making sure they had a voice.

ITA Software, Cambridge MA - *Development Manager*

Feb 2005 - Feb 2009

- A range of roles, including tech lead & manager, Departure Control (DCS) - a DCS handles checkin, boarding, baggage, meals etc. for an airline. The role involved extensive interaction with airline customers to understand the business rules & legal requirements, and also very extensive integrations across the airline's IT services.
- I led a dedicated team through a year of very challenging performance analysis and tuning, ultimately demonstrating to a national flag-carrier launch customer that we could handle 3x their measured peak traffic. This was a big technical challenge because these systems have strict ACID requirements at scale - e.g. a seat can only be assigned to one ticket - that previously were only addressed by large mainframes.

The Financial Times, London UK - *Lead Technologist*

Sep 2002 - Nov 2004

- The Financial Times is a global business newspaper. My role ensured the technical success of all software projects undertaken by the Financial Times and FT.com.
- One notable project was the dotcom era launch of ft.com as a 'global business portal', integrating the FutureTense web-publishing system and a wide range of bespoke tools and services.
- Another was the integration and deployment of EidosMedia's Méthode, a single publishing system for both print and online. This publishing system was the backbone of the FT enterprise.

EDUCATION

University of Bristol, UK - *PhD, "Dynamic Discontinuity Meshing"*

1993 - 1998

An exploration of an algorithm for realtime photorealistic shadowing.

University of Bristol, UK - *BSc, Computer Science*

1990 - 1993

First Class with honors, joint winner of prize for best final year exam performance.