

WYATT ALT

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ABOUT

Backend developer with specific interest in databases, storage, and query systems.

SKILLS

Concepts Relational databases, data modeling, statistical analysis, performance analysis, API development, developer tools, technical writing, configuration management, cloud infrastructure, open source community support.

Languages Go, Python, Typescript, Clojure, Ruby, R.

Technologies PostgreSQL, Linux, Docker, Kubernetes, Redis, GCP, AWS, Azure, Terraform, Puppet.

WORK

Senior Software Engineer, LanceDB

January 2025 - present

- Scalable vector search database built on object storage.

Career Sabbatical

January 2024 - January 2025

- Took CS286 at UC Berkeley (Implementation of Database Systems on Modern Hardware)
- Developed [dp3](#), an S3-compatible multimodal log database.

Software Engineer, Foxglove Technologies Inc.

May 2021 - January 2024

- Original designer of the [MCAP file format](#) and major contributor to associated tooling. MCAP is a popular serialization-agnostic log container format in the robotics industry that has been adopted as the default log format for ROS 2. It handles format aspects such as self-description, chunk compression, indexed playback, integrity checks, client SDKs, and efficient summarization, while leaving choice of message serialization to the user.
- Initial developer of Foxglove Data Platform, a robotics data management solution for storage and playback deployed on Kubernetes both as a hosted multitenant SaaS, and by customers in self-hosted fashion. Foxglove DP stores petabytes of multimodal log data for leading robotics companies and is used on all three major clouds.

Staff Software Engineer, Cruise

July 2020 - May 2021

Senior Software Engineer, Cruise

June 2018 - July 2020

- Designed, implemented, and led operation of Cruise's internal service for low-latency streaming log playback, which became the internal backend for [Webviz](#) and a large portion of data access in general. Peak traffic was thousands of requests per second and hundreds of terabytes streamed per day.
- Built and administered intense PostgreSQL database clusters ranging to dozens of terabytes in size and thousands of QPS. Operational challenges included online table rewrites and partitioning, multixact member ID wraparound, bloat elimination, connection pooling, load balancing, and tables with growth rates in the billions of records per day.
- Organized PostgreSQL trainings with 2ndQuadrant for interested engineers.
- Proposed and drove cross-team projects to realize millions of dollars in savings in infrastructure costs through reduction of unnecessary data storage and underutilized databases.

Software Engineer, Puppet

June 2014 - December 2017

- Major contributor to [PuppetDB](#), an open-source datastore for Puppet backed by PostgreSQL. PuppetDB is used by tens of thousands of people around the world and assists in the management of millions of computer systems. Components include a powerful custom query language and SQL compiler.
- Frequent technical representative to customers on PostgreSQL and PuppetDB performance.
- Contributed variously to most backend elements of Puppet Enterprise.

Statistical Programmer, Maple Bay Asset Management LLC

August 2013 - March 2014

EDUCATION

B.A. Mathematics *Reed College*, Portland, OR.

2013

OTHER

Multimodal log database: [dp3: multimodal log database](#)

May 2024

Undergraduate thesis: [Enumeration of Domino Tilings on the Projective Grid Graph](#)

May 2013