

Zach Morgan

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Software engineer creating business value through scalable design and clean, well-tested code. Elevates teams through ownership, leadership, communication, and investment.

Experience

Planning Center, *Software Engineer II*

Nov 2024 – present


Machine Research, *Software Engineer*

Feb 2024 –


Oct 2024



B2B SaaS leveraging machine learning to estimate manufacturing parameters based on 3D models.

- Developed the company's first third-party integration (Intuit QuickBooks), implementing an OAuth 2.0 Authorization Code flow that enabled users to sync data across applications.
- Invested in other engineers through technical presentations, reviewing pull requests, pair programming, and writing detailed documentation. Selected Examples:
 - Provided trainings on unit, integration, and end-to-end testing, leading to an 18% increase in test coverage with a focus on business-critical acceptance criteria.
 - Facilitated discussions on API, database, secrets management, and infrastructure patterns resulting in significant improvements to architecture, security, and performance.
 - Advised other engineers on production build, configuration, and deployment challenges which contributed to the resolution of several incidents.
- Led the design and implementation of a new GraphQL server and Postgres database.
- Developed multi-environment Terraform configurations managing S3 buckets, DynamoDB tables, Lambdas, IAM resources, ECR repos, RDS nodes, ECS clusters, VPCs, and load balancers.
- Identified performance optimizations for API calls and database queries.
- Created a web service with a declarative API enabling system tests to configure backend state.

Signet, *Capstone Project* 

2023

Open source framework for automating contract tests in CI/CD (<https://signet-framework.dev> ).

- Led the development of an HTTP proxy written in Go which enabled the transparent recording and verification of API calls between microservices during system tests.
- Designed a CLI for developers to provision AWS infrastructure and record service deployments.
- Developed CloudFormation templates for EC2, ECS, ELB, and IAM resources.
- Built an Express.js REST API and webhook service to support a web UI and CI/CD integration.
- Implemented per-test SQL transactions which eliminated flakiness in 100% of integration tests.
- Authored the project's *documentation*  and *case study* 

Languages

TypeScript, Ruby,
Go/Golang, SQL,
JavaScript, HTML, CSS

Libraries/Frameworks

Express.js, Ruby on Rails,
Angular, React, Redux,
RxJS, Cypress, Jest

Platform/Tooling

AWS, Terraform, Docker,
GitHub Actions, Linux, Git,
Digital Ocean, Fly.io

Data/Network

GraphQL, REST, HTTP,
TCP/IP, UDP, PostgreSQL,
DynamoDB, MongoDB

Education

Launch School, *Software Engineering graduate* 

2021 – 2023

Oregon State University, *Bachelor of Science — Biochemistry and Molecular Biology*

2015 – 2020