

# Ahmad Jiha

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## TECHNICAL EXPERIENCE

### Co-Creator, Software Engineer

Jun 2022 – present

*Conifer* - <https://conifer-test.github.io>

Conifer is an open-source, test parallelization framework that speeds up execution of End-to-End (E2E) test suites written with Cypress.

- Designed a multi-node test parallelization framework that allows users to split up a Cypress E2E test suite and run it in-parallel on cloud-based infrastructure, speeding up test suite execution time by up to 3.72x.
- Automated deployment of a multi-node parallelization infrastructure using AWS's Cloud Development Kit (CDK), enabling an end-user to deploy infrastructure with a single command in under 10 minutes.
- Engineered a two-stage algorithm for efficiently allocating test files amongst the nodes of the test-parallelization infrastructure, allowing the test suite to be sped up on the initial run while enabling further optimization of future test runs.
- Designed a file-watcher utility for detecting and persisting testing artifacts produced by Cypress, allowing test results and metadata to be uploaded in real-time to persistent cloud storage such as AWS's S3 and DynamoDB.
- Created a live dashboard for visualizing test results using React, Express, and Tailwind CSS, allowing end-users to view the results of a test run in real-time.
- Built a robust and easy-to-use Command Line Interface with Node.js, Commander.js, and Inquirer.js, enabling an end-user to run conifer with just five commands.
- Collaborated with a remote, internationally distributed team of software engineers, coordinating daily standups, pair programming sessions, and code reviews.
- Authored a comprehensive technical case study covering analysis of the problem domain, Conifer's specific use-case, exploration and justification of design decisions, and discussion of tradeoffs.

### Fullstack Web Developer

Sep 2021 – present

*Launch School and Independent Experience*

- Developed open-source web applications utilizing various languages/technologies, such as JavaScript, Ruby, Python, PostgreSQL, HTML, CSS, and more, gaining proficiency with various databases, backend & frontend web development frameworks, and templating libraries.
- Selected Projects:
  - Track-It: A Trello-like project management board, built with Node.js, Express, React/Redux, and MongoDB.
  - RequestCapture: A RequestBin-like tool for capturing and inspecting inbound webhooks, built with Node.js, Express, PostgreSQL, MongoDB, and Handlebars.
  - CartOut: A database-backed e-commerce application, built with Node.js, React/Redux, and MongoDB.

## SKILLS

### Languages & Frameworks

JavaScript, Node.js, Express, React/Redux, Cypress, Python, Go, Ruby, SQL, HTML/CSS, R, RStudio

### Cloud

AWS (CDK, CloudFormation, ECS, EC2, Fargate, ECR, DynamoDB, S3), Digital Ocean Droplets, Heroku

### Technologies

Docker, PostgreSQL, MongoDB, Nginx, Git, Github, SSE, WebSockets, REST API Design, Redis

## PROFESSIONAL EXPERIENCE

### Research Assistant

Oct 2019 – Sep 2021

*THRIVE Lab, Department of Psychiatry, UCSF*

- Coordinated with the principal investigator, lab manager, and other study support personnel to develop and execute novel research studies, run participants, and analyze study data.
- Automated and sped-up repetitive study protocols by writing scripts with Python/R, simplifying study administration and freeing up time for other tasks.
- Standardized and cleaned large data sets, enabling statistical analysis of research data and calculation of study measures.

## EDUCATION

### Launch School (Capstone)

Sep 2021 – Sep 2022

*Software Engineering and Full Stack Web Development*

- Comprehensive fullstack software engineering curriculum emphasizing mastery of fundamentals.

### University of California, Berkeley

Jun 2017 – Aug 2019

*B.S. Business Administration*