

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 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