Ahmad Jiha

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PROFILE

Born in Los Angeles and now based in the San Francisco Bay Area. I discovered a passion for code while pursuing a career in medicine, when I taught myself how to automate repetitive medical research tasks. With this first experience I initiated my journey as a software engineer. Currently, I am developing *Conifer* 🔗 , an open-source test parallelization framework.

EXPERIENCE

Co-Creator, Software Engineer 🔗   Jun 2022 – present
Conifer is an open-source test parallelization framework that speeds up End-to-End (E2E) testing 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 later 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.

Software Engineer   Sep 2021 – Sep 2022
Launch School (Capstone Program)
- 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.

Research Assistant   Oct 2019 – Sep 2021
THRIVE Lab, Department of Psychiatry, UCSF
- Created an R-based automated pipeline for cleaning, standardizing, and importing clinical research study data into a Clinical Trial Management System, eliminating data-entry errors and reducing data processing times by 93%.
- Automated subject recruitment and enrollment procedures, simplifying administration and accelerating study recruitment.
- Coordinated the development of a mobile app with a remote team of software engineers, enabling the execution of a remote clinical trial.
- Standardized and cleaned large datasets in Python, enabling statistical analysis of research data.

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, MySQL, MongoDB, Nginx, Git, GitHub, SSE, WebSockets, REST API Design, Redis

EDUCATION & TEST SCORES

Medical College Admission Test (MCAT)   Sep 2021
Score: 524 (100th Percentile)

University of California, Berkeley   Aug 2019
B.S. Business Administration - Haas School of Business