Colin Kahn

[GitHub (https://github.com/colinkahn)](https://github.com/colinkahn) • info@colinkahn.com • (626) 590 2323

Work History

Mobot - April 2022 to Present

Senior Backend Software Developer

Mobot gives customers confidence in their mobile software releases by testing on real devices using robots. I work on their Clojure backend and ClojureScript frontend used by QA operators to run tests as well as display reports to customers.

Responsibilities include:

- Extended OAuth2 login implementation to support Microsoft accounts
- Developed a back-testing framework to exercise image assessment changes
  - Technologies used: Clojure, Python, Docker, Google Cloud Run
- Customer facing charting for test run reports
  - Technologies used: ClojureScript, Reagent, Re-Frame, Oz (vega)
- Proof of concept for updating and viewing changes to their test plans
  - Backwards compatible implementation
  - Generative testing creating successive versions, checking their validity
  - Technologies used: Clojure, Reitit, Ring, Postgres, HugSQL, clojure.test.check

Parkside Securities - May 2019 to April 2022

Lead Developer

Parkside Securities was developing a scalable financial platform for trading, written in Clojure using Kafka and Datomic. When I first joined, I worked mainly on their internal broker dealer operations frontend application doing both development and design. I soon shifted into a full stack role, doing development on their backend microservices as well. During that time I began an initiative to write stateful model-based property based tests (PBTs) for the most critical components of the system. Eventually a specific team was broken out for test automation, which I led.

Responsibilities included:

- Developed product features for backend microservices
  - Technologies used: Clojure, Kafka, Datomic, GraphQL, QuickFIXJ
- Developed and designed the internal broker dealer operations frontend application
  - Technologies used: ClojureScript, re-frame, Storybook, Ant design system
  - Worked with product to create mocks in Storybook for fast iteration with stakeholders
  - Utilized feature flags for short cycle time
  - Abstracted common state machines to simplify development for other engineers
- Lead Developer for the test automation team
  - Developed an integration testing framework to run multiple services connected via the Kafka TestDriver to exercise application logic quickly without deploys
  - Developed a suite of stateful model-based PBTs in our integration test framework focused on finding bugs with order placement and execution code
  - Extended integration test PBTs to run end-to-end, finding race conditions in k8s deployed services
  - Developed a market emulator implementing the FIX spec as a purely functional Clojure library to simulate responses from the market during testing
  - Managed the company's CodeScene account to provide valuable insights into code health, refactoring targets and team delivery efficiency

JPL - December 2018 to May 2019

Frontend Developer

Contract work for the Enterprise Business Information Services team at the JPL lab in Pasadena, CA. Helped refactor an Angular 7 application to use NgRx Store for state management, and then implemented many additional features in a short period of time.

Responsibilities included:

- Angular 7 application development
  - Used NgRx Store for state management
  - Practiced TDD for unit testing, achieving high code coverage
  - Used Storybook for component development and fast iteration with designers

Disney Studio Technologies - April 2016 to January 2018

Frontend Developer

A project spearheaded by the User Experience team at Disney Studio
Technologies, Hex is a design language with Angular 2+ and CSS implementations.
I was brought onto the project to build their component libraries from the
ground up. Working closely with UX and visual designers to create a product
that was adopted by over half a dozen teams for production applications.

Responsibilities included:

- Created 60+ components following UX best practices with a visual style unique to
  Disney
  - Refined design patterns with other team members to create a consistent,
    development-ready, system
  - Implemented, tested and version controlled the components
    - Technologies used: Angular 2+, RxJS, TypeScript
  - Created documentation for components including live demos and code samples
  - Created sample applications showcasing use cases for the components
- Developed a standalone CSS library which other framework implementations could
  use
  - Structured the library using the ITCSS architecture and advocated for its
    adoption for all projects - Slides (http://bit.ly/2x1gVaO)
  - Worked with QA to develop a framework to visually compare CSS styles

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Ubiquiti Networks - September 2013 to April 2016
Senior Frontend Developer

The main project I worked on was to help develop a flawless user experience for
Ubiquiti Networks' disruptive wireless hardware line, AirCRM. The platform was
developed as a cloud connected interface to allow remote management of a
wireless internet service provider's entire network of devices. The project
eventually supported on-premise installation, seamlessly adapting the same
frontend code to the new backend.

Responsibilities included:

- Helped the team acheive frontend best practices for new projects
  - Shifted the team from using Backbone to AngularJS
    - Advocated for componentization to improve efficiency and reuse of frontend

code
    - Developed and helped maintain a CSS style guide for use across several teams and projects
        - Coordinated development workshops to strengthen the teams CSS skills
- Lead Developer for the U CRM Control monitoring software
    - Developed dashboards for monitoring and managing hardware networking devices from the cloud as well as adapting it for on-premise use
    - Maintained high code quality standards with code reviews, end-to-end and unit testing.
    - Technologies used: Git, Karma, Protractor