

Timothy Andrew

Introduction

Software developer with 5 years of experience writing web services in Clojure and Ruby/Rails, as well as non-trivial frontend code (CoffeeScript/React). Values clean, well-tested code. Enjoys working remotely, and is able to stay productive in this environment. Currently working with GitLab. Most of my recent work can be found on my [GitLab feed](#).

Experience

GitLab

2016 - Present

- Developed features for the Ruby/Rails backend. Some highlights:
 - Built a “Cycle Analytics” dashboard from scratch, which displays metrics for different parts of the workflow for a given organization. This feature involved adding instrumentation to a large cross-section of the codebase, as well as writing fairly complex Arel/SQL queries.
 - Authentication related features such as [U2F key](#) based authentication and [personal access tokens](#).
 - Significant changes to the permissions model, such as adding an auditor user (global read-only access) and protected branches (different role/user/group permissions for each specific git branch).
- Performed code reviews for internal / external contributions of all sizes.
- Since GitLab’s code is open source, a full record of my contributions is available [here](#).

Nilenso Software

2013 - 2016

- Worked on the recommendations backend for a prominent retailer. This was implemented as a number of Clojure microservices, all of which I worked on at some point. Some highlights:
 - Didn’t know any Clojure when I began this project - ramped up working on an email-marketing service.
 - Learned to use (and optimize queries for) Amazon Redshift to run reports on large volumes of sales data, split up by the recommendations offered.
 - Rewrote a feed-processing service (pull data feeds over SFTP/FTP from retailers) to be cleaner / more extensible.
 - Created a new web service that scraped category/pricing data from other online retailers, to improve ML models. A lot of trial and error to figure out what architecture would work - eventually settled on a cluster of auto-scaling headless browsers.
- Built a retail messaging/communication application from scratch - gathering customer requirements, planning iterations, and feature delivery.
- Worked on an ad-tech platform, primarily customer information management - deduplication, reconciliation, etc.
- Wrote an internal wiki application (Wikenso) from scratch in about 6 weeks. A lot of frontend-heavy work here, such as replicating Medium’s “on-select menu” (the original editor wasn’t open-source at the time). This project is still live at <http://wikenso.com/>

C42 Engineering

2012 - 2013

- Worked with a non-profit to design and build an open-source field surveying tool.
 - The application was split into three components – a mobile app to collect survey responses while offline and sync them up later, a web app to design surveys and view results, and an OAuth provider for authentication.

- The two web apps were written in Rails, including a survey designer written with Backbone. The challenge was to allow surveys with recursive branching (if the answer to a question is “Yes”, show one branch of sub-questions, otherwise show another branch of sub-questions). Some production surveys had as many as 8 nested levels of branching.
- This suite of apps was successfully used in the field (rural areas of India) multiple times.

SuccessFactors

2011

- Worked as a frontend intern on a report builder application that was being rewritten from the ground up in Javascript and JUIC (an internal Javascript toolkit).
- Interfaced with a **BIRT** backend to display charts, graphs, etc.

Miscellaneous

- Solved the **Stripe CTF** challenge in 2012 and 2014, which involved finding various creative ways of breaking into web apps. My solutions are on GitHub: <https://github.com/timothyandrew/stripe-ctf3-solutions>.
- Wrote a web app for my wife (who teaches children with special needs) to help her manage daily activities, lesson plans, and student goals. It also has some useful utilities, like a random form generator (to practice data entry with) and paper-based games (PDF generation). The code is open-source on GitHub: <https://github.com/timothyandrew/blink/>.
- Won a few **HackerOne** bounties by finding vulnerabilities in web applications.

Skills

Production-ready: Clojure, Ruby/Rails, Javascript, SQL (mainly PostgreSQL)

Fair working knowledge of: Python, Java, Clojurescript

Hobby: Erlang/Elixir, Objective-C/Swift, C++

Misc: Emacs, Shell scripts, Make, Markdown, Ansible/Fabric, Git, Vagrant, Docker/Compose

Education

Bachelor of Engineering – Computer Science

2008 –2012 - *CMR Institute of Technology*

Contact / Links

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- <https://gitlab.com/timothyandrew>
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