

Taylor Flagg

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Skills

Languages

JavaScript (including ES6)/CoffeeScript, HTML5, CSS3, Python, Ruby, Caché ObjectScript

Front-end Technologies

React, JQuery, SASS, Backbone.js/Underscore, Webpack/Browserify/NPM/Grunt/RequireJS, Highcharts, CSS animation, HTML canvas, HTML5 audio and video

Back-end Frameworks

Node.js & Koa/Express, Rails, Flask

Technologies

Git, Docker, AWS/Google Cloud, NPM, Unit Testing with Mocha/Sinon/Chai/PhantomJS/etc., iOS and Android Web Development & Testing, Agile Development

Databases

MySQL & PostgreSQL, MongoDB, InterSystems Caché (object-based dbms)

Work Experience

Tapjoy - Senior Front-end Engineer

December 2014 - October 2016

I was part of multiple teams while at Tapjoy and got the chance to work with various front-end technologies.

Dashboard Integration

Part of the team that integrated existing customer-facing dashboard functionality with a newly acquired partner's dashboard. The site was written in CoffeeScript with Mustache templates and used Backbone, Highcharts, JQuery, and the Ractive framework to aggregate live data from multiple back-end servers and present it in various graphs, charts, and tables.

Audience Targeting Tools

Sole front-end developer on the targeting team as we worked to overhaul the form tools our sales team used to target their audience. I developed and integrated new React components with our existing ERB template forms and used SASS to update the look to match our design team's mockups. The most fun part was using React, Ruby, and MySQL to create a typeahead selector for our geotargeting that enabled the user to quickly search among the thousands of countries, regions, and cities in our database.

Ad Flighting

Worked on both sides of our ad-flighting technology. First, by maintaining and improving the dashboard used by the sales team to flight the ads. This dashboard employed a hodge-podge of Ruby ERB, Backbone.js, and React. Following that, I was responsible for the platform of JavaScript code that ran on the user's mobile device to deliver the interactive video ad experience. The configurable platform was pure ES6 JavaScript (translated with Babel) with CSS animations running within the device OS's webview.

Scout Exchange - Front-end Developer

April 2013 - August 2014

I was responsible for all front-end code including CSS stylesheets, JavaScript files, and Jinja HTML web and email templates. The interfaces made heavy use of Twitter Bootstrap, JQuery, and Backbone.js. Our application featured 6 different interfaces integrated as an iframe in our partner's software and a full system administration site.

UI Build System

Designed and implemented a UI-build system to speed up and simplify our front-end code. I incorporated SASS for cleaner CSS code and dependency control, integrated RequireJS for JavaScript dependency control, and used Grunt to package our library and custom code into single files -one per interface. I reduced our file accesses from about 20 files per page to 3, speeding up response time and drastically reducing our bandwidth.

Full stack

Though my title was front-end developer, I worked on the entire application stack and was involved in design and programming on the back-end as well. Most of the code was in Python using the Flask framework, MongoDB, and the mongoengine package. We used agile development practices and had 100% unit test code coverage. I took turns in production support and helped with system configuration.

InterSystems Corporation - Web Programmer

June 2010 - February 2013

In 2010, I transitioned from technical trainer to full time web programmer for the Learning Services department. I was responsible for design and development of new applications, ongoing management of the existing applications (bug fixes, special requests, etc.), and system administration of the host linux servers. In addition, I served as technical coordinator for a number of projects pursued by the Social team.

Development Projects

Designed and developed InterSystems' video portal using InterSystems' Zen framework, JavaScript, and JQuery. Back-end communicated with Brightcove video server using REST API calls.

Built new version of job-finding site based on an existing design. Programmed the site using JQuery, InterSystems' Caché database, and the Zen framework.

Intern Mentor

Served as mentor and project manager for ongoing development of internal training and survey tracking web application. Mentored seven interns over four summer internship periods. Oversaw project architecture, schedules, and development.

InterSystems Corporation - Technical Trainer

February 2007 - June 2010

Taught courses in object-oriented programming, web programming, and system management both in our classroom in Cambridge and at customer sites around the world.

Zen Programming Course

Built a 3-day training course based on InterSystem's web programming technology. I developed the entire course including agenda, lecture-slides, and exercises.

Side Projects

Make It So

For the past few years I've been working on a single-page web application disguised as a sci-fi text adventure. The back-end uses NodeJS running the Koa framework and MongoDB. The front-end uses Backbone.js and SASS.

Play the work-in-progress demo: <http://makeitso.hi-scor.es>

Full source code: <https://github.com/trflagg/MakeltSo>

argie (decision engine that powers the game): <https://github.com/trflagg/argie>

hi-scor.es

Personal website built with HTML and CSS animations.

<http://hi-scor.es>

<https://github.com/trflagg/hi-scor.es>

JavaScript games

I participated multiple times in the 48-hour game programming challenge, Ludum Dare. Each game is written in JavaScript and runs directly in the browser using SVG or HTML canvas.

Tiny World Machine Inc. <https://github.com/trflagg/TinyCampbell>

Darwin Defenders <https://github.com/trflagg/DarwinDefenders>

P27 <https://github.com/trflagg/P27>

SolidGround <https://github.com/trflagg/SolidGround>

The Disk of Phaistos <https://github.com/trflagg/TheDiskOfPhaistos>

Education

University of Florida

Bachelor of Science *cum laude*, May 2005.

Major: Computer Science

Minor: Music Theory/Literature

GPA: 3.7

University of Florida School of Engineering

PhD student in Computer Science, August 2005 – December 2006.

Graduate courses included: Computer Networks, Programming Language Principles, Formal Languages & Computational Theory, Concurrent Programming, Computer & Network Security

Three semesters as a TA for Problem Solving Using Computer Software.

GPA: 3.8