STEPHEN KENT

BACKEND WEB DEVELOPER

Github
stevejameskent1@gmail.com
(240) 441-4057

Education

University of Maryland, College Park
B.S. Computer Engineering

Skills

Javascript	node.js	MongoDB / Postgres
Python	Java	J2EE
Git / Subversion	OS X	Windows 7

Experience

CFPB

Backend Dev (Contract)

HMDA Pilot **Nov. 2014 - Present**

Helped develop a next-gen linting tool for HMDA (Home Mortgage Disclosure Act) filers. The tool allows users to submit a proposed HMDA file and have it checked for common errors (defined here). Issues with the file are summarized in the UI grouped by edit id with field names and their submitted values. The user can then edit the file to fix issues and continue to test until all errors are resolved before going through the final submission process.

Responsibilities

- Helped create a business rule engine which uses flexible JSON specifications for easy versioning of rulesets by year.
- Rule engine written as a node.js module and used in front end code via Browserify.
- Expanded the engine using mixins for versioning of engine logic by year in addition to ruleset specs.
- Wrote unit tests for all code I developed using mocha.js and must.js.
- Helped develop a RESTful lookup API for querying against public data (Census, etc) using kraken.js.
- Used Github issues to track stories and coordinate tasks.
- Git pull requests used to coordinate between team members and review code and relevant unit tests being integrated.
- Database persistence layer built using Mongoose (MongoDB ORM).
- Database of choice was MongoDB for performance, easy scaling, and convenient storage format (JSON).

Environment

node.js 0.10, kraken.js 1.0.5, express 4.12.3, mongoose 4.0.2, bluebird 2.9.25, lodash 3.7.0, superagent 1.2.0, moment 2.10.2, coveralls 2.11.2, istanbul 0.3.12, mocha.js 2.2.4, must.js 0.12.0, grunt 0.4.5, angular 1.3.15, MongoDB 2.6, Sublime Text 3.

FCC

Backend Dev (Contract)

Vizmo **Mar. 2014 - Nov. 2014**

Developed backend Python code for aggregating and displaying cellular internet performance testing results. Results were taken from the official FCC mobile speedtest app, binned into geographic areas (defined by various resolutions of hexagons), and then tabulated into aggregate statistics. These statistics were then used to generate a map using Tilemill and hosted by Mapbox. In the UI users could then click on a hexagon to see the statistics for that area, including the min, max, median, and average for download speed, upload speed, latency, and packet loss for each carrier.

Responsibilities

- Created backend Python code for aggregating cellular internet performance testing results.
- Results came in JSON format and were geo binned to hexagons to be displayed as aggregates.
- Python script ran and produced daily statistics using custom map-reduce code.
- Aggregation code was run in parallel using a worker-producer model via the Python multiprocessing module.
- Created maps in Tilemill to display the results of each run.
- Also wrote a second Python script to run after the first to automatically create updated maps and push to the Mapbox servers.
- Both scripts set to run and produce updated statistics and maps daily.
- Database of choice was MongoDB for performance, easy scaling, and convenient storage format (JSON)

Environment

Python 3, Curl, Tilemill, Mapbox, MongoDB 2.4, Pycharm / Sublime Text 3, node.js, restify, forever, mongojs.

Resonate Inc

Backend Dev

Bug Tracking System

May 2010 - Mar 2014

Developed a workflow based tool that captures the issues reported by the quality team members for a small software company; the system has the provision to do the delegation of issues to someone in case of the particular developer's absence. Also provides quick and easy dashboard information with graphical data based on criticality and priority.

Responsibilities

- Developed the persistence layer using Hibernate ORM with JPA Annotations.
- Implemented presentation layer using Struts 1.3 (MVC).
- Configured spring beans in an external configuration file to implement IoC through setter and constructor injections.
- Implemented several design patterns within the application including singleton, factory, MVC, front controller and business delegate.
- Developed SOAP based web services to expose certain functionalities of the system for remote access.
- Version control handled with Subversion using eclipse subclipse plugin.
- Deployed EAR and WAR files using ANT scripts on the Weblogic 11g application server.
- Coded CSS style sheets with JSP and HTML pages to enhance the design of the view pages.

Environment

Java 6, J2EE, Servlets, Spring, JSP, Struts 1.x, WebLogic Server, EJB 3.0, Hibernate 3.6, DAO, Postgres, Eclipse / Intellij, JUnit, Log4j, Ant, UML.

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