

Rich Martinez - Resume

Contact

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Experience

Senior Software Engineer, Rocket Mortgage (formerly Quicken Loans)

November 2019 - June 2022

- System Design
 - For prioritizing service virtualization: Created a roadmap, and architecture design diagram, worked with stakeholders to create a feature estimation with the Weighted Shortest Job First scale and created the features and stories with well-defined acceptance criteria.
 - Created a TypeScript & Mountebank application of virtualized services, using ECR, ECS, and EKS to represent service dependencies of the Rocket Mortgage Origination frontend.
 - For request logging with Mountebank, the virtualized services integrated with a TypeScript Lambda, behind APIGateway with a defined OpenAPI contract, that accepts Mountebank requests and logs them to an S3 bucket.
 - Created a TypeScript CLI to autogenerate the boilerplate infrastructure, boilerplate TypeScript application for each virtualized service, and CircleCI config updates.
 - Thoroughly documented with many examples covering the why of the application, how to set up new virtualized services, updating existing virtualized services, and infrastructure overview.
 - Update authentication for Rocket Mortgage Origination Admin Panel to use Auth0 Angular, and update active directory authorization groups.
- CI/CD Improvements
 - Created a Composer package called code-quality-tools that was a collection of the Rocket Mortgage Origination CI/CD scripts, to be reusable among all Rocket Mortgage Origination CI/CD pipelines. Thoroughly documented readme that provided examples of how to use each script and provided a commonly used template for a collection of composer.json scripts that mapped to the CI/CD script and made it easy to run things locally as well as in the pipelines.
 - Created a merge freeze continuous integration script written in TypeScript that automated blocking pull requests from being merged during a merge freeze.
 - Created a detailed plan to remove the merge freeze requirement and never block merges but instead block automatic deploys during the deployment window.
 - Created thorough documentation for use of the CI/CD script including multiple logic flow diagrams to describe exactly what was happening on run.
 - Created a Node CLI to autogenerate a Postman collection, including pre-request OAuth script, using an OpenAPI contract. To be run as a CircleCI job.

- Created CircleCI merge workflow jobs to automatically build docker images and push them to internal Artifactory to speed up local development with prebuild images.
- Reduced the time it took to run CI unit test and generate code coverage by 60%.
- Development LifeCycle Improvements
 - Reduced the number of manual steps needed and reduced OS compatibility issues during setup and build for multiple repositories by managing everything through containers.
 - Setup remote debugging for various repository containers using Xdebug, special docker DNS, and Remote Explorer for Visual Studio Code, and added thorough step-by-step documentation on debugging setup.
- Technology Standards
 - Created a CI/CD standard for Rocket Mortgage Origination frontend repositories including
 - pipeline requirements for unit tests, acceptance tests, e2e tests, mutation tests, performance tests, load tests, SCSS linters, Typescript linters, static analysis, unit test coverage, deploy ability checks, and health checks
 - pipeline optimizations for automatically generating a release at scheduled times and linting commits
 - diagrammed continuous integration and continuous delivery ideal workflows for pull requests, merged code, release tag, and scheduled quality checks
 - Created a security risk mitigation standard for Rocket Mortgage Origination frontend, which included
 - existing Rocket Mortgage InfoSec standards that must be followed
 - tools that must be used to mitigate risk including SonarQube, Snyk, CodeQL, docker-file-image-update, npm-check-update, Helmet, and csrf
 - tools that should be used to mitigate risk including cors and a tool for dynamic application security testing
- Mentoring
 - Mentored junior software engineers on using the development environment of the Rocket Mortgage Origination codebases, object-oriented programming concepts, and design patterns used by the codebases.
 - Answered technical questions, offered to pair program with software engineers to share knowledge, and helped prepare junior software engineers for promotional interviews.

Software Engineer, Rocket Mortgage (formerly Quicken Loans)

June 2017 - November 2019

- Development LifeCycle Improvements
 - Helped develop, document, and diagram a new standard for the development process, including branching strategy, automated deployment to lower environments, and pull request code quality requirements.
 - Created a TypeScript CLI that prompts the user to associate the quality gate scripts with a user-selected Git Hook (e.g. pre-push).
 - Updated the frontend build step to run tasks in parallel and make all the functions asynchronous.
 - Implemented code splitting to lazy load modules with dynamic imports via Webpack.

- Updated docker images to LTS versions.
- Added a cache-buster for the assets to benefit the clients.
- Application Design
 - Created a multistep online schedule closing experience BFF API and view modules for Rocket Mortgage Origination clients to close loans faster.
 - Built out a co-branded origination experience BFF API and view modules for the clients of Rocket Mortgage Origination partners.
 - Created a containerized JavaScript application of virtualized services representing all the dependencies of the Rocket Mortgage Origination frontend application, to speed up development and make the acceptance test more reliable.
- Mentoring
 - Mentored junior software engineers on using the development environment of the Rocket Mortgage Origination codebases, object-oriented programming concepts, and design patterns used by the codebases.
 - Advised the Rocket Mortgage Origination backend team on a plan to transition TFS version control to Git version control, which included transferring commits, branching strategy, Git commands, and merging strategy & code quality checks.

UI Developer, Rocket Mortgage (formerly Quicken Loans)

August 2014 - June 2017

- Fully Redesign the One Reverse Mortgage frontend
 - Collaborated with the design team to create a One Reverse Mortgage style guide for all the one reverse mortgage products both internal and external.
 - Worked with the design team to fix designs that I considered overly complex UI for the web. Thoroughly encouraged a mobile-first design flow. Pushed back on designs that were bad UX with accessibility in mind.
 - Replaced all image graphics with SVG for scaling consistency. Implement SVG animations with SnapSVG for things like taking a base SVG of the United States map and providing tooltip functionality with information about lending for each state.
 - Implemented BEM ideology for all SCSS.
 - Added better client-side validation and maintained regular expression simplicity through concatenating separate reusable regex variables, for things like year, month, date, phone number, etc.
 - Created a basic auth app for MyORM using express and a JWT package.
 - Fully documented application redesign for things like, installation, running the application, debugging, building, unit testing, writing client-side validation, etc.
- Optimized frontend build process
 - Replaced Browserify with Webpack, using a default Webpack file and multiple environment files that import the default file.
 - Added postcss step for Autoprefixer for browser prefixes and purifyCSS to decrease CSS file size by a few percent, by removing unused classes.

- Added shrinkwrap to the project to ensure package version consistency across installs, before package-lock was available.
- Created separate modules for each gulp task and updated all the tasks to use ECMAScript 2015.
- Optimized continuous integration quality by setting a standard to require JavaScript unit tests using Mocha.
- Mentored UI developer interns and junior software engineers
 - Taught them CSS/SCSS best practices and methodologies (e.g. BEM, ITCSS, Atomic CSS), ECMAScript 2015 features, semantic HTML, and some standards from WCAG 2.0.
 - Provided thorough explanations for any suggestions I might have had in reviewing their code.
 - Provided opportunities as needed to pair program.
- Contributed to JavaScript Standards Group
 - Helped create standards for things like client-side frameworks and associated technologies, linting, and BFF layer technologies.

Web Developer Internship, Rocket Mortgage (formerly Quicken Loans)

May 2014 - August 2014

- Created and managed internal WordPress websites
 - Created custom themes with LESS
 - Added new content areas as needed
 - Fixed invalid HTML for content editors
- Set WordPress site standards for the content management system to avoid unwanted content behavior
 - Disallowed HTML in most content inputs
 - Limited editing capability of the What You See Is What You Get tools to provide only things needed for the content editors

Open Source Projects

Remove Stale Branches CLI - July 2018

- Created a Node.js CLI for automatically removing any number of local and/or remote branches that have been merged upstream.

Skills

Language Experience

- HTML/Twig
- CSS/SASS/LESS
- JavaScript/TypeScript
- PHP
- .NET/C#
- Python
- sh/bash/zsh

Framework/Library Experience

- Angular
- React
- Express
- Next.js
- Symfony
- Slim

Tools

- Git
- CircleCI
- Docker
- Kubernetes/Helm
- Terraform
- Postman
- Splunk/Grafana

Education

Baker College of Clinton Township, MI

- Bachelor of Digital Media Technology - September 2011
 - Major - Digital Media Design

Baker College of Flint, MI

- Associate of Business - August 2009
 - Major - Graphic Communications