

ASHIL FARAHMAND

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SKILLS

React, Redux, Ruby on Rails, PostgreSQL, Git, CSS, JavaScript, jQuery, MongoDB, Node.js, NewRelic, Webpack, TDD

EXPERIENCE

Software Engineer

GiveCampus

Dec 2018 - Present

- Led engineering initiative to build an automated invoicing tool to generate invoices and interface with Quickbooks API thereby freeing at least 50 people-hours/month
- Optimized server code and SQL queries across the codebase to reduce processing delay by up to 95%
- Performed major refactor of matching gift code into a separate service via TDD using rSpec
- Upgraded Stripe API payment processing code collaboratively with engineering team
- Rapidly responded to partner support tickets by hotfixing bugs and deploying to Heroku

Multiplex Communications Patent Examiner

US Patent and Trademark Office

Sep 2008 - Jan 2018

- Performed literature review for patent applications in network communications to identify novelty relative to existing technologies achieving a 90% affirmation rate at the Board of Patent Appeals and Interferences
- Earned docket management award for achieving 110% of timeliness goal for processing of applications
- Collaborated with adversarial attorneys to negotiate mutually agreeable solutions

Graduate Research Assistant

Virginia Polytechnic Institute and State University

May 2008 - Sep 2008

- Proposed cooperative collision avoidance system to prevent collisions between autonomous vehicles
- Developed sparse and dense traffic optimization algorithms to mediate traffic flow through an intersection
- Presented published research at the IEEE Intelligent Vehicles Symposium at Xian, China

PROJECTS

Quikstarter

[Live Site](#) | [Github](#)

A single-page app that clones features of Kickstarter.com using a React/Redux frontend and Ruby on Rails backend

- Designed a rapid search feature that triggers AJAX search requests in response to user keystrokes
- Implemented a discovery feature by using a custom route to access projects by category via a RESTful API
- Implemented a secure authentication feature by storing BCrypt hashed passwords in a PostgreSQL database
- Used Webpack to bundle and transpile assets

Roommez

[Live Site](#) | [Github](#)

A single-page app that connects groups with compatible roommates using a React/Redux frontend with Express.js, Node.js, and MongoDB in the backend

- Led architectural planning for a 4-person team project, including creation of MongoDB schemas, state shape, front and back end routes, and component hierarchy
- Designed an algorithm that dynamically searches for compatible users based on group member's composite preferences and responds with the user information via an API

PUBLICATIONS

Farahmand, Ashil Sayyed, and Lamine Mili. "Cooperative Decentralized Intersection Collision Avoidance Using Extended Kalman Filtering." In *Intelligent Vehicles Symposium, 2009 IEEE*, pp. 977-982. IEEE, 2009

EDUCATION

Virginia Polytechnic Institute and State University (2004-2008)

BS/MS Electrical Engineering