

# ASHIL FARAHMAND

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## SKILLS

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

## EXPERIENCE

### Software Engineer

*GiveCampus*

Dec 2018 - Nov 2020

- 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

### 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

LX9

WIP | [Github](#)

*A P2P social network that facilitates exchanging used books built using JavaScript and Ruby on Rails*

- Implemented customer onboarding by interfacing with Dwolla payment processor API and webhooks

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 with Node.js*

- Led architectural planning for a 4-person team project, including creation of MongoDB schemas, state shape, front and back end routes, and component hierarchy

## 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*