

AVSHAR KIRKSALL

Software Engineer
Brooklyn, NY

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<https://avshrk.github.io>

EXPERIENCE

Software Engineer

May 2019 – Present

CushionDB - <https://cushiondb.github.io>

Brooklyn, NY

- CushionDB is an open source database for building offline-first Progressive Web Applications.
- It is the only client side database that is able to synchronize data bidirectionally decoupled from the app.
- Recognized a need for preemptive data push (server push) to reduce web application latency.
- Reduced DOM Blocking by separating long running computation from the main thread.
- Implemented Multi-leader data replication/synchronization architecture among user databases.
- Utilized Progressive Web Application tools such as Service Workers and Push Notifications to implement bidirectional data synchronization between user databases even if the web application is closed.
- Reduced HTTP traffic by replacing long polling with event based data synchronization.
- Simplified installation by configuring and deploying Docker images for server side components.
- Co-authored a comprehensive [case study](https://cushiondb.github.io) (<https://cushiondb.github.io>) about engineering CushionDB and the design decisions we've made.

Full Stack Web Developer

2015 – 2019

Mita Consulting USA Inc.

Brooklyn, NY

- Built ecommerce web applications for Amazon sellers and integrated their web app with their seller accounts.
- Built an extensive number of web applications with Ruby/Rails, React/Redux, and Node/JavaScript.

General Manager

2013 – 2015

SohoConcept

Lyndhurst, NJ

- Oversaw USA operations of marketing, sales, importing, staffing and day-to-day activities.
- Achieved 23% average increase in annual sales.

Founder

2008 – 2013

Partners Modusvivendi Inc.

Brooklyn, NY

- Founded and operated online used books sales company with over \$300K annual sales

PROJECTS

Built open source web applications with Ruby, Rails, JavaScript, React, Redux, SQL, HTML/CSS

- **Postit:** A social news and discussion application similar to Reddit built with Rails, PostgreSQL, JavaScript
- **Airline Routes:** A React application that allows users to view and filter airline routes on clickable SVG map
- **Project Board:** A project management web app with React, Redux and Rails

SKILLS

Programming Languages: Assembly, C, Java, Ruby, JavaScript, Perl, PHP, Shell Script, SQL, Awk, Sed, Python

Front End: HTML/CSS, React, Redux, jQuery, PouchDB, Service Workers

Back End: Rails, Node, Sinatra, PostgreSQL, MySQL, SQLite, CouchDB, Docker, FreeBSD, Linux, Git

EDUCATION

Louisiana State University - Baton Rouge, LA

Bachelor of Science in **Information Systems and Decision Sciences**