

# AVSHAR KIRKSALL

Software Engineer  
Brooklyn, NY

avshar@protonmail.com  
<https://avshrk.github.io>

## EXPERIENCE

---

### Software Engineer / Co-creator

May 2019 – Present

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

Brooklyn, NY

- CushionDB is an open source database for building offline-first Progressive Web Applications.
- CushionDB 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](#) about engineering CushionDB and the design decisions we've made.

### Full Stack Web Developer / Consultant

2016 – 2019

Mita Consulting USA Inc.

Brooklyn, NY

- Implemented custom applications for Amazon Sellers via Amazon Marketplace Web Service API.
- Built custom websites for Amazon sellers and integrated their web site with their Amazon Seller Accounts.

### General Manager

2013 – 2016

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
- **Trello-O:** A trello-clone with React, Redux and Rails

## SKILLS

---

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

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

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

## EDUCATION

---

**Louisiana State University** - Baton Rouge, LA

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