

# Henry Dotson

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## Projects

### Pagevault.io

A full stack web application for online note-taking with rich text formatting and embedded images (using AWS S3 storage), and includes end-to-end client side encryption using the Stanford Javascript Crypto Library

STACK: Rails, React.js, PostgreSQL, AWS, SJCL, HTML, CSS, Git

### JSAsteroids

A pure Javascript implementation of the classic game Asteroids. I plan to build on this to make a multiplayer game in the spirit of Agar.io

STACK: JavaScript, HTML, CSS, Git

### Mapport

A web app that leverages in-line SVG to deliver contextual inspection data to clients

STACK: Ruby, Ruby on Rails, PostgreSQL, AWS, HTML, CSS, Git

### Water Portal

My Master's thesis project - a web application interface for accessing and analyzing government groundwater monitoring data

STACK: Rails, React, D3.js, PostgreSQL, AWS, HTML, CSS, Git

## Experience

### Database Engineer / IT Consultant

Tristate Biodiesel, LLC, Bronx, NY

Jun. 2011 - Present

Developed features and maintained internal database with MS Access/VBA frontend and MySQL + postgresSQL backend server running on Linux (CentOS)

Provided IT support for office staff in a Windows Domain, onsite and remotely

### Software Developer / Investigator

New York Environmental, Inc., Port Washington, NY

Jun. 2014 - Aug. 2015

Architected and wrote Rails application to display data about interior spaces in customer facilities via links embedded within an SVG floorplan generated from AutoCAD drawings

Performed maintenance and upgrades on laboratory MS Access legacy database

Prepared CAD drawings detailing asbestos to be abated

### Data Analyst / Environmental Investigator

Microecologies, Inc., New York, NY

Oct. 2013 - Jun. 2014

Developed sampling plans, performed air/water sampling using proprietary equipment, and conducted data analysis to draft environmental inspection reports for clients

### Data Engineering Intern

NYC Dept. of Environmental Protection, Jamaica, NY

Jun. 2012 - Aug. 2012

Created a database application using ArcGIS and VBA for entering and managing inspection data of Bluebelt properties

Generated data trees for import into the Avantis software system

Implemented updates to GIS maps features related to Bluebelt assets

### Operations & IT Manager / Database Engineer

Tristate Biodiesel, LLC, Bronx, NY

Aug. 2007 - Jun. 2011

Developed internal database with MS Access/VBA frontend and MySQL backend server running on Linux (CentOS) to manage customers and general operations as client base increased by 500% within 2 years

Designed and implemented specialized features including: service call scheduling, truck routing with RoadNet technology, and collections tracking

Built billing & inventory system to extract data from fuel inventory management software  
Generated reports and analyzed data for strategic decision-making

## Technical Skills

Ruby / Ruby on Rails

JavaScript

HTML/CSS

React.js

D3.js

Node.js

Flux

AWS

Heroku

SQL / MySQL / PostgreSQL

Linux / Red Hat Linux

Windows Server 2008/2012

Active Directory

Windows Domain administration

Linux server administration

ArcGIS

AutoCAD

MS Access / VBA

Adobe Creative Suite CS6

## Education

### App Academy

Full Stack Development

(Completion: Dec 2015)

Studied object oriented programming in Ruby and modern full stack web development skills in: Rails, React, JavaScript, Node.js, HTML, CSS, Flux

### Pace University

M.S. Environmental Science

(Completion: 2016)

Groundwater Monitoring Data Visualization project using D3.js, ArcGIS mapping software, and SQL to develop an intuitive interface for parsing, manipulating and displaying U.S. Geological Survey data.

### Hampshire College

B.A. Social Psychology 2006

### Stuyvesant High School

Graduated 2002

## Languages

English

Proficient / native speaker

Spanish

Conversationally fluent