

# NICHOLAS DOIRON

## EXPERIENCE

**SENIOR APPS DEVELOPER**, Asia Foundation, San Francisco — June 2015-July 2016

Developed NodeJS server for data entry and analysis and designed Myanmar 2015 election API  
Scraped data from OpenStreetMap and government websites for map-editing hackathon in Mongolia  
Forked NYPL building map OCR and crowdsourcing platform to process maps from Indian NGOs

**WEB DEVELOPER**, Museum of Modern Art, New York — July 2014 - June 2015

Wrote Ruby on Rails code for MoMA's website, API, and a Raspberry Pi exhibit  
Followed TDD and pair programming practices  
Transferred designers' PDF specs and sketches to responsive HTML5 / CSS

**SOFTWARE ENGINEER**, Civis Analytics, Chicago — Fall 2013 - Summer 2014

Wrote Ruby on Rails for a data science platform, including survey geospatial and graph visualizations  
Test-driven development using Rspec, Capybara, Travis CI, and code reviews

**GIS FELLOW**, City of Boston GIS Department — Summer 2013 - Fall 2013

Deployed open source apps to provide information on bike lanes, voting, public safety, and startups  
Created full-screen map for homepage of Boston Redevelopment Authority

**WEB DEVELOPER**, Datamade, Chicago — Spring 2013

Collaborated with civic activists to visualize public health and transportation data

**CODE FOR AMERICA FELLOW**, San Francisco — 2012

Interviewed government officials and community organizers to conduct need assessment  
Collaborated with local governments on housing, disaster response, and transit apps  
Released public data on neighborhood level for community groups to show their impact

**TRAVELING TEACHER / DEVELOPER**, One Laptop per Child — 2010 - 2013

Developed new math, science, geography, and language-learning activities in Python  
Produced multilingual content for schools in Uruguay, Haiti, and the Marshall Islands

## SAMPLE PROJECTS

### **MajuroJS.org**

Uploaded 2 million buildings into a MongoDB, developed a NodeJS Express Server as an API

### **OpenStreetMap City Namer & Messenger Bot**

Set up a web platform and Facebook bot to re-label Nepalese cities in their original language

### **Fortran.IO**

Open-sourced an MVC web platform written in Fortran - uses HTML templating, SQLite driver

# NICHOLAS DOIRON

## **[npmjs.com/crossword](https://npmjs.com/crossword)**

Published website and node module to generate crosswords, with Unicode grapheme clusters

## **WebGL and Vector Tiles Maps**

Created animated, crayon-style, and textured maps using MapBoxGL and Mapzen's vector tiles

## **SKILLS**

### **In web development**

JavaScript, both front-end and Node.js (Express/Koa), NPM, React

HTML5, responsive CSS and pre-processors (SASS)

Ruby on Rails, Python (Flask / AppEngine); less frequently PHP, Go, and Fortran

Deployment to AWS EC2, Lambda (with Serverless), Heroku, DigitalOcean

Setting up TLS certs with LetsEncrypt and nginx or Apache; post-quantum encryption

Git and GitHub; contributions to OpenStreetMap iD editor, CoffeeScript compiler, OpenPGP.js

### **In databases**

PostgreSQL / PostGIS, MySQL, SQLite

NoSQL: MongoDB, Neo4j (graph database)

### **In languages**

Conversational Spanish and Japanese

Basic Arabic (UAE / Gulf dialect)

i18n/l10n including right-to-left language layouts, PolyglotJS, adding Marshallese to jQuery.IME

### **In visualizations**

Building custom maps with OpenStreetMap, MapBox (JS and WebGL), Google, ArcGIS Server

Charts in D3, C3, and HighCharts