

Michael Dougherty

Software Engineer — Portland, OR
michael.douglas.dougherty@gmail.com

Independent contractor providing efficient, correct software solutions to complex problems which minimize harm and maximize good.

EMPLOYMENT EXPERIENCE

Software Lead **PLANT Group** Portland, OR
2017 - present
Wrote software for ESP8266 microcontrollers used to control smart irrigation systems and monitor soil conditions
[Python](#) [React](#)
[Microcontrollers](#)
Built a client-facing web app to manage and report on said microcontrollers

Senior Software Engineer **CrowdStreet, Inc.** Portland, OR
2016 - 2017
Maintained and built features for a large existing Django web app
Did a greenfield rewrite of large swaths of the front end in React; built a custom data table framework
[ReactJS](#) [Django](#)
[Docker](#)
Owned and maintained a multi-instance Docker-based devops setup

Software Engineer **Building Energy, Inc.** Portland, OR
2014 - 2015
Implemented a management system which the city of San Francisco currently uses to manage its building energy benchmarking requirements.
[Python](#) [Django](#)
[AngularJS](#)
[Elasticsearch](#)
Put BE "on the map" - made their app geospatially aware with a searchable map of buildings and a custom geocoding service.

Consultant **Web Development Consultant** Portland, OR
2010 - 2014
Doing literally everything, often as a one-man team. Front end, back end, devops, and some design. See below for details on recent clients.
[Python](#) [PHP](#)
[HTML/CSS](#)

Research Assistant **Pennsylvania State University** State College, PA
2005 - 2009
Designed and coded simulations of crowd behavior in C++.
[C++](#) [MATLAB](#)
Used data mining and neural networks to predict strength and reliability of materials based on microphotographic cross-sections
Sole programmer on these and several other projects

EDUCATION

- 2007 - 2009 **M.S. Computer Science** Penn State University
Completed entire program *except for thesis*
- 2002 - 2006 **B.S. Electrical Engineering** Penn State University

PAST CLIENTS

2017

Lead Developer

Python Elm

University of North Carolina

Chapen Hill, NC

Developed a web app for collecting data from a wide audience of participants
[<http://www.sensingsettlements.org>]

2014

Lead Developer

Developer

Python Flask Jade

SalterMitchell

Washington, D.C.

Single-handedly developed a site for a genetics research startup which interfaces with a complex API. Worked tightly with a small team of in-house designers and developers as a remote contractor across the country.

2013

Lead Designer

Lead Developer

Python Django Sass

PostgreSQL

University of North Carolina

Chapel Hill, NC

Worked closely with a UNC research team to design and develop an open-source web application for visualizing and interacting with geospatial data. Designed a public-facing site to showcase this application. Also designed a highly customized website to showcase a professor's research projects.
[<http://www.makingroomformanufacturing.org>]

Developer

PHP Laravel

partlyhuman / This Is Pop / NBC Universal

New York, NY

Worked with one other developer and a game design team to create a new online HTML5 game for NBC Universal's Character Arcade. Designed the entire backend to the game, working closely with the NBC team to connect their API to the game's frontend. Helped the NBC team white-label the game so as to produce other versions with different game assets and branding.

Developer

CoffeeScript

HTML5 Canvas

Grove

Portland, OR

Collaborated with the Lead Developer to create a feature-rich HTML5 tool for iPhone case customization. Also did maintenance and implemented various new features on their highy-customized Django-powered eCommerce site.