**Work Experience**

Methods with Class, LLC (owner)

*independent contractor, Feb 2015 - present*

* Independent Contractor
* All the below sites are full stack sites built in Angular and Express with Gulp build tools for Babel preprocessing of ES6, Sass, concatenation, minification, and dependency injection
* They are all single page applications (SPAs), and all use state-based navigation

**Evolutionary Algorithms Site**

* Educates non-technical layman about evolutionary algorithms and machine learning
* Algorithm is an external, custom-built NPM package and is a generic engine used by the site’s arbitrary number of subsite demonstrations

**desktop and mobile**

<https://evolve.methodswithclass.com>

GitHub: <https://github.com/methodswithclass/evolve>

**bower install evolve | npm install mc-evolve**

**Gravity Site**

* Uses the accelerometer as the controller. It produces the effect that an object on the screen moves when your mobile device tilts and moves around in real space
* The engine numerically integrates raw accelerometer data being output by the browser using a custom-built Bower package
* It is generic and can be applied to many different game scenarios

**mobile only (requires accelerometer)** <https://gravity.methodswithclass.com>

GitHub <https://github.com/methodswithclass/accelerometer>

**bower install accelerometer | npm install accelerometer**

**Blog site**

* Takes in simple text blog files and meta data as input, interprets them using a service, and renders blog pages
* Site expands by adding text files and meta data objects to data service
* Since site is an SPA, meta data is served on a special basis from a service to social media crawlers like Facebook and Twitter for link sharing purposes on specific blog URLs

**desktop and mobile** <https://www.unnecessarytheories.io>

**Methods with Class (company site)**

* Custom parallax software to produce variable scrolling speed for some elements on page
* Landing page for all other sites
* Online contact and resume

**desktop and mobile** <https://www.methodswithclass.com>

**Skills**

* Full Stack web development, single page application development (SPAs), MVC development
* JavaScript, TypeScript, HTML, CSS (semantic, non-semantic), SASS
* Java, PHP, Objective-C, VBA, ActionScript, JSON
* Angular (JS/2-6), React, Node, Express
* Gulp, Grunt, Webpack
* Functional programming, OOP, RESTful APIs, non-RESTful APIs
* Command line development, bash scripting
* Git, GitHub, BitBucket, GitLab, CodeCommit
* Software/Application development, architecting, engineering, automation, and abstraction
* Requirements definition, gathering, and management
* Agile methodology: daily standups, sprints, Jira issue tracking, and Confluence documenting tools
* Heroku hosting and AWS EC2
* CI/CD pipeline development
* Utilization of post-receive hooks for operations on code pushes during deployment
* Linux server configuration, systemd, NGINX virtual server configuration
* Virtual environments
* Site hosting, domain registration, DNS configuration
* Linux, Unix, Windows
* Written communication
* Math, physics, engineering, motion dynamics, other technical skills
* Hilarity [ curious if you're reading, but I’m also kind of great ;) ]
* Builds applications for maintainability, scalability, ease of refactorability at low cost

**Education**

Penn State University

2009 Bachelors of Science in Aerospace Engineering

2011 Master’s of Science in Aerospace Engineering

George Mason University

2012 Graduate Certificate in Systems Engineering Analysis and Architecture

(also took courses in Java in my own time, outside of the certificate program)