**Max Plomer**:

email: maxplomer@gmail.com

phone: (203) 945-8606

website: http://www.codingprojects.co

location: 598 Broadway, New York, NY 10012

**Education**:

**App Academy**:

location: New York, NY

description: Ruby on Rails and Backbone.js coding bootcamp

topics: Ruby, SQL and Rails associations, Rails user authentication, JavaScript, Backbone.js, CSS

dates: Sept 2014 - Nov 2014

**University of Connecticut**:

location: Storrs, CT

degree: Master of Science in Mechanical Engineering, GPA: 3.5/4.0

completed: May 2013

**University of Connecticut**:

location: Storrs, CT

degree: Bachelor of Science in Mechanical Engineering

completed: Dec 2010

**Experience**:

**“The Psalm of Howard Thurman” Documentary Film**:

location: Boston, MA

position: Developer

starting: Apr 2015

highlights:

- Generated Ruby on Rails application using Rails Composer, integrated customized Bootstrap Template and styled modal

- Adapted Devise and Bootstrap user management system, provided by Rails Composer, into admin dashboard

- “Contact Us” messages and subscribe requests can be viewed in-app and are also emailed to site admin using SendGrid API

- Architected Google Drive to host site content, empowering artist to edit site content from shared folder and see the updates instantly

- Created YAML representation of all site data that is hosted on Google Drive and parsed by the Rails app during requests

- staging URL: http://howardthurmanfilm.herokuapp.com

**FreeFundraise.com**:

location: Boston, MA

position: Developer

dates: Feb 2015 - Apr 2015

highlights:

- Engineered API-driven Backbone.js application that allows you to shop and give to the charity of your choice for free

- Designed and implemented interface that uses carousels programmed in Backbone.js, and makes use of model and collection operations, to allow a user to select a featured charity or to explore a list of all charities

- Integrated with Amazon, eBay and FlexOffers affiliate programs by investigating all required formats of passing query string parameters, which allowed tracking of the charity being donated to

**Outlearn.com**:

location: Boston, MA

position: Consultant

dates: Jan 2015 - Feb 2015

highlights:

- Researched topics to facilitate technical training, and formatted content into prototype format

- Integrated with GitHub by importing repositories and allowing login using GitHub account

- Experimented with JavaScript Fancytree library, a dynamic tree view plugin for jQuery, to display imported contents

- Engineered advanced coding challenges using RSpec tests for Ruby and Jasmine tests for JavaScript

- Created interactive terminal sessions for Ruby, JavaScript and PHP using jq-console, a jQuery plugin

**Westport, CT and World Maker Faires**:

location: Westport, CT and New York, NY

position: Presenter

dates: Apr 2014 (Westport) and Sept 2014 (World)

highlights:

- Presented the science behind my project “Clean Fuel Chemical Kinetics” and how it can be used to model clean fuels in the engines of tomorrow

- Articulated reaction rate and Lagrange multiplier problems to teach science and math to faire attendees

**Saigeworks LLC**:

location: Trumbull, CT

position: Consultant

dates: May 2014

highlights:

- Utilized my chemical kinetics software to help inventor transform hands-on experience into concrete engineering terms

- Determined 2.4 kJ of work and 3.3 kJ of heat for methane and 3.0 kJ of work and 5.1 kJ of heat for hydrogen produced in one cycle per gram of fuel and oxygen at stoichiometric ratio

**University of Connecticut**:

location: Storrs, CT

position: Teaching Assistant for Combustion, Compressible Flow, Renewable Energy, Senior Design Project

dates: Jan 2011 - Dec 2012

**Projects**:

**CarbonFootprint.co**:

starting: May 2015

source: http://www.github.com/maxplomer/carbon-calculator

highlights:

- Architected form-driven AngularJS application that persists data to Ruby on Rails backend

- Added user authentication using Devise and the angular-devise AngularJS service

- Designed architecture to perform carbon footprint calculation in Ruby on the backend and send result to AngularJS frontend via API as an attribute in the ActiveModel Serializer

**AndrewTalty.tv**:

date: Apr 2015

source: http://www.github.com/maxplomer/andrewtaltytv

highlights:

- Ruby on Rails application that uses jquery-tubular plugin to display a YouTube video in the background of a TV Producer’s portfolio page

- Detected browser type using jQuery browser identification in order to display a still image background for mobile devices

- Blurred social media and video control buttons using text-shadow CSS attribute

**JavaScriptSandbox.com**:

date: Dec 2014

source: http://www.github.com/maxplomer/javascript\_sandbox

highlights:

- Created an online live coding environment using Ruby on Rails and Backbone.js, useful for demoing HTML, CSS and JavaScript code

- Integrated Twitter bootstrap navigation bar and utilized a current\_user Rails controller and accompanying Backbone.js Model to allow user authentication entirely in Backbone.js

- Sandboxed JavaScript code by safely evaluating it in the browser

**RealEstateTracker.co**:

date: Dec 2014

source: http://www.github.com/maxplomer/real\_estate\_tracker

highlights:

- Developed commercial real estate application using Ruby on Rails and JavaScript

- Presented complex financial analysis for investment properties using compelling CSS design

- Created instantaneously updating forms and diagrams using jQuery and Ajax requests

**CodingChallenges.co**:

date: Nov 2014

source: http://www.github.com/maxplomer/coding\_challenges

highlights:

- Ruby on Rails application where you can compete and boost your programming skills

- Utilized Ace high performance code editor to deliver code syntax highlighting for submitting and presenting Ruby, JavaScript and SQL coding solutions

- Solved problem of sandboxing user submitted code to only permit safe method calls for all 3 accepted languages

**BitChart.co**:

date: Nov 2014

source: http://www.github.com/maxplomer/finance-clone

highlights:

- Built application using Ruby on Rails and Backbone.js where you can participate in a stock investing competition

- Developed performance graph that plots user profit on a daily basis using optimized algorithm that analyzes stock market data stored in database; speed increased 20x after optimizing SQL queries

- Applied Heroku scheduler and market\_beat ruby gem to pull stock market quotes and save to database

**Computing Package for Thermal Gas-Phase Chemical Reactions**:

dates: June 2013 - Dec 2013

fuel-specific packages available at: http://www.combustionhelp.com

highlights:

- Programmed simplified chemical kinetics software package using high-level programming languages

- Investigated: CHEMKIN-II mechanism format, NASA polynomials for thermodynamic data, Arrhenius/Lindeman/Troe form reactions, programming language speeds and license costs

- Applied MATLAB profiler to improve inefficiencies; time to converge constant volume reactor was reduced from 619 sec in initial version to 0.8 sec, which is substantially closer to CHEMKIN converge time of 0.5 sec

**Technology Skills**:

Languages: Ruby, JavaScript, SQL, HTML, CSS, MATLAB, C, Fortran

Tools: Ruby on Rails, AngularJS, jQuery, Backbone.js, Ember.js, Git, Linux, AWS, Heroku

Hobbies: Raspberry Pi, Unity3D

Favorite Ruby Gems: rest-client, whenever