Danny Ou
Full Stack Engineer / Mechanical Engineer

Contact

Phone: 646-238-2807
E-mail: **idannyou@gmail.com**

Skills

Programming

Ruby on Rails	Ruby
SQL	HTML
React.js	Redux
CSS	JavaScript
MATLAB	Bash

Engineering Programs

AutoCAD	REVIT
TRACE 700	COMSOL
LabView	Pro/ENGINEER

Education

App Academy, New York

Binghamton University, SUNY (ABET accredited)

Masters of Science,
Mechanical Engineering
GPA: 3.88/4.00
Graduated in 5/2012

Minor,
Mathematics
GPA: 3.74/4.00

Projects

Full Stack: Int-structables @GitHub (Rails, PostgreSQL, JavaScript, React/Flux)
A full-stack, single-page calculus instructional webpage. The frontend is written in JavaScript, React and Flux with the backend written in Rails. File uploading is done using Amazon Web Services.
- Multiple images uploading feature using Ruby Gem Paperclip, React Drop Zone, and Amazon Web Services.
- Optimized a Search feature that queries the database only after a settable amount of time has passed.
- Implemented a CRUD framework for users to showcase different Calculus ideas.

Front End: CalcuGraph @GitHub (JavaScript, Canvas, CSS, jQuery, MathQuill, and mathjs)
A single-page interactive browser graphing application. CalcuGraph is capable of the following:
- Real time rendering of function input and graph.
- Approximating tangent lines using derivatives.
- Approximating area under the curve using Left Endpoint Riemann Sums.

Code Intensive: DOMinate (DOM interaction library)
DOMinate is a JavaScript DOM interaction library inspired by jQuery:
- Manipulate multiple DOM elements.
- Queue functions until DOM is fully loaded.
- Provide and receive HTTP requests.

Work Experience

MG Engineering: Mechanical Designer   4/2016- 11/2016
Description: Assisted Senior and Principal Engineers in HVAC with focus on Variable Refrigerant Flow (VRF).
- Calculated heating and cooling load on residential and commercial buildings using TRACE 700.
- Specified VRF equipment for design loads using multiple vendors. Equipment footprint, cost, and performance were evaluated for final recommendation to clients.
- Produced Construction Documents in HVAC for high rise residential and commercial buildings using REVIT and AutoCAD.

ME Engineers: Mechanical Engineer   10/2014- 3/2016
Description: Assisted Senior and Principal Engineers in HVAC, Plumbing, and Fire Protection designs.
- Re-designed a cooling system for a 300kW data center using high density modular units.
- Assisted project managers in completing initial design work for Madison Square Garden, and an Ice Center in Bronx, NY.
- Supported senior engineers in design calculations, surveying, specifying equipment, researching applicable mechanical, energy and building codes, and completing design specifications.

Knolls Atomic Power Laboratory: Mechanical Engineer (Inactive Security Clearance)
4/2013- 9/2014
Description: Rotational projects in the Engineering Leadership Development Program.
- Programmed a data post processing tool to correlate relationships using least square regression (MATLAB).