Gen (Danny) Ou

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Education

App Academy, New York

12/2016 - 3/2017

1000-hour full-stack programming boot camp with < 3% acceptance rate, with an emphasis on pair programming, Test Driven Development, and best practices.

Binghamton University, State University of New York (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.

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).

Skills

<u>Programming:</u> Ruby on Rails, Ruby, SQL, HTML, React.js, Redux, CSS, JavaScript, MATLAB and UNIX. <u>Engineering Programs:</u> AutoCAD, REVIT, TRACE 700, COMSOL, LabView, and Pro/ENGINEER. <u>Document Processing:</u> Word, Excel, Outlook, PowerPoint, and Bluebeam PDF.