# **NATE CHAPMAN**

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### **PROJECTS**

### iVidz | Rails, React.js, PostgreSQL

Live | Github

A video-sharing web application inspired by YouTube

- Implemented a fully-functional search bar using the PgSearch library to provide more user interactivity, allowing the user to search for specific content
- Introduced a loading animation through CSS3 animation when uploading longer videos for a more comfortable user experience
- Leveraged Rails polymorphic associations for likes on videos and comments for DRY and readable code

### CyberDrive | JavaScript, jQuery, Canvas

Live | Github

- Programmed a fun two-player game inspired by Tron using JavaScript and a visually appealing 80's aesthetic
- Implemented sound effects, customizable players, and Canvas drawing animations to immerse the user in the CyberDrive experience

DOMable Live | Github

• Created a lightweight library for users to transform, create and manipulate DOM elements, make AJAX requests and handle events

#### **EXPERIENCE**

Calamos Investments

Naperville, IL

Research Associate, Market Neutral Income Fund, \$4b AUM

Summer 2016 – Summer 2017

- Created a Python program that interfaced with Excel files to graph a surface plot of option volatility data for use in meetings with potential investors, including a \$300 million deal
- Recommended and implemented an Akima Spline algorithm to interpolate and smooth historical volatility datasets with larger time gaps than present volatility data for a smoother surface plot

### Harger Lightning & Grounding

Grayslake, IL

Engineering Student Consultant, Senior Design

Winter 2016 – Summer 2016

- Collaborated with a company team to analyze current copper scrap and engineer an atomization and oxidation system for copper reclamation
- Using a budget of over \$500,000, designed and implemented a solution saving Harger over \$120,000 a year
- 1st place Gold award in Division V (Bachelor & Graduate Degree Papers) Lincoln Arc Welding Foundation

#### **EDUCATION**

APP ACADEMY

New York, NY

• Rigorous full-stack software engineering program with <3% acceptance rate

Summer 2017

## **UNIVERSITY OF ILLINOIS**

Urbana-Champaign, IL

Bachelor of Science, Industrial Engineering

Fall 2011 - Spring 2016

Curriculum Highlights: Linear Algebra, Statistics and Stochastic Processes, Simulation, Algorithms I

#### **TECHNICAL SKILLS**

Ruby	Ruby on Rails	JavaScript	SQL	Python	HTML5	CSS3
React	Redux Architecture	AWS	Git	RSpec	jQuery	