

# NATE CHAPMAN

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## PROJECTS

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### 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

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### 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

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### 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

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