

# Andrew Gu

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College Park, MD • Cupertino, CA

## Education

University of Maryland,  
College Park

**Major:** Computer Engineering

**Class:** Fall 2017

## Languages

Javascript / Coffeescript

Ruby

OCaml

Prolog

Java

C

PHP

Y86 Assembly/MIPS

Verilog

Matlab

HTML5 / CSS3

## Frameworks/Technologies

Node.js

Ruby on Rails

jQuery

Ember.js

React.js

Angular.js

Backbone.js

Redis

Elasticsearch

Git

## Databases

MySQL

MongoDB

PostgreSQL

## Electronics

Arduino

PSPICE

## Experience

### Research Assistant

Sept. '16 - Present

UMD Radiation Facilities

### Junior Engineer

Sept. '15 - Jan. '16,

June '16 - Aug. '16

FiscalNote - Washington, DC

>> Built various features and bug fixes with Ember.js on the front end Ruby on Rails as the API.

>> Wrote Elasticsearch queries to filter out bills from amendments and built UI filters based on the queries.

>> Worked on making the app more accessible for visually impaired by adding context to images, links, and icons. Also applied ARIA attributes as necessary.

>> Built various features that involved exporting data to CSV and XLS formats.

>> Worked on a team of 5 to build a version of FiscalNote for the European Union for our intern hackathon.

### Software Engineering Intern

June '15 - Aug. '15

AppCow - New York City

>> Developed a recommendation engine using PHP and the 42Matters API to deliver a personalized list of mobile apps.

>> Worked in a team of 3 to rebuild entire backend API in Node.js and MongoDB.

### Software Developer

June '15 - Aug. '15

Fusion Ventures - Maryland

>> Built a frontend for Fusion Venture's Beat the Brain challenge that allowed users to submit trades to compete against each other and the internal algorithm.

>> Worked on integrating the E-Trade API in PHP to allow users to automatically submit trades to the stock market.

### Web Development Intern

June '14 - Aug. '14

MyWebRoom - San Francisco, CA

>> Rewrote entire testing suite in Ruby on Rails with RSpec and Capybara.

>> Improved Wordpress blog by reducing load times, redirecting blog to load through Cloudflare, and redirected blog URL to improve SEO through HTTP rules on Apache.

## Systems

Linux (Ubuntu, Arch)  
OSX  
Windows

## Relevant Coursework

### Computer Science:

- >> Introduction to Object Oriented Programming I
- >> Introduction to Object Oriented Programming II
- >> Discrete Structures
- >> Introduction to Computer Systems
- >> Organization of Programming Languages
- >> Algorithms
- >> Computer and Network Security (Spr '17)
- >> Operating Systems (Fall '17)

### Electrical Engineering:

- >> Electric Circuits
- >> Elements of Discrete Signal Analysis
- >> Digital Logic Design
- >> Fundamental Digital Circuits and Systems Lab
- >> Analog and Digital Electronics
- >> Electronic Circuit Design Laboratory
- >> Signal and System Theory
- >> Computer Organization
- >> Engineering Probability (Spr '17)
- >> Digital Computer Design (Spr '17)
- >> Computer Security (Fall '17)
- >> Reverse Engineering and Hardware Security Laboratory (Fall '17)

### Math:

- >> Calculus III
- >> Differential Equations for Scientists and Engineers
- >> Linear Algebra for Scientists and Engineers (Spr '17)