

# Andrew Gu

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## Education

University of Maryland,  
College Park  
**Major:** BS, Computer  
Engineering  
**Anticipated:** Spring 2018

## Languages

C (Advanced)  
Ruby  
Java  
Python  
Javascript  
PHP (Proficient)  
Y86 Assembly / MIPS / x86  
Matlab  
OCaml (Beginner)  
Prolog  
Verilog  
C++

## Frameworks/Technologies

Node.js (Advanced)  
Ruby on Rails  
jQuery  
Ember.js  
Git  
React.js (Proficient)  
Angular.js  
Backbone.js  
Redis (Beginner)  
Elasticsearch

## Databases

MySQL  
MongoDB  
PostgreSQL

## Electronics

Arduino  
PSPICE

## Experience

### Extreme Blue Technical Intern May '17 - Present

IBM - Austin, TX

>> Utilizing Watson, Node.js, and machine learning to build a real-time virtual agent for service desk agents.  
>> Worked in a team of 4 to plan development and manage requirements with internal teams and external companies.

### AMP Tutor, CMSC216 Jan. '17 - May '17

University of Maryland, College Park - College Park, MD

>> Teaching students core concepts related to C, Assembly, and Unix system processes.  
>> Hold office hours to assist with projects and class material.

### Software Developer Intern Jan. '17 - Feb. '17

Mid-Atlantic Crossroads - College Park, MD

>> Oversaw all UI and UX changes in redevelopment of application.  
>> Established guidelines for writing maintainable & scalable Javascript and CSS.

### Research Assistant Sept. '16 - Dec. '16

UMD Radiation Facilities - College Park, MD

>> Tested new hardware and wrote code samples for new and old equipment to begin development of a controls system for university's linear accelerator. Wrote in C++ and ROOT.

### 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.  
>> Researched, built features, and established guidelines to make app more accessible for visually impaired.  
>> Built a version of FiscalNote for the European Union for our intern hackathon with a team of 5.

### 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.  
>> Rebuilt entire backend API in Node.js and MongoDB in a team of 3.

## 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

### 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

### Math:

- >> Calculus III
- >> Differential Equations for Scientists and Engineers
- >> Linear Algebra for Scientists and Engineers