

# Charles Marsh | Software Engineer

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## Education

### Princeton University

Princeton, NJ

*B.S.E. (Computer Science), 3.90 unweighted GPA*

*2011–2015*

Member of the Tau Beta Pi honor society. Relevant coursework includes Algorithms & Data Structures (A+), Theoretical Machine Learning (A), and independent research in software-defined networking (A). Sample papers available [here](#).

### The American School in London

London, UK

*H.S. Diploma (Valedictorian), 4.03 unweighted GPA*

*2007–2011*

Scored 2330 on the SAT I and 800 on the SAT II Math, Chemistry, and Physics subject tests.

## Work Experience

### Khan Academy

Mountain View, CA

*Software Development Intern*

*May–August 2014*

Full-stack development for the Content Tools Team, working with one of the largest and most advanced React.js codebases in the world. Led development efforts to integrate thousands of existing math exercises (designed for the web) into an innovative, handwriting recognition-based iPad application.

### Microsoft

Seattle, WA

*Software Development Intern*

*June–August 2013*

Front- (TypeScript, HTML, CSS) and back-end (C#, C++, IntelMKL) development for Bing's Core Relevance Incubation Team, with a focus on visualizing novel machine learning techniques at massive scale.

### Toptal

Remote

*Head of Content*

*March 2013–May 2014*

Grew Toptal's Engineering Blog from scratch to hundreds of thousands of unique visits and regular production of thought-leading technical content, sourced from engineers around the globe.

### Princeton University

Princeton, NJ

*Research Intern*

*July–August 2010*

Investigated Dark Matter with a focus on purifying argon gas for use in neutrino experiments.

## Projects

**Readjoy:** [Node, Express, React] A web application for aggregating and recommending long-form journalistic content, live [here](#). Built with JavaScript, end-to-end.

**Jasper:** [Python] An open source platform for developing always-on, voice-controlled applications, featured in WIRED, Forbes, and others. The [GitHub repository](#) has over 900 stars and 200 forks.

**Semantic:** [Python] A library for extracting semantic information (e.g., dates, numbers, mathematical calculations) from text. Available via [PyPI](#).

**Quizzler:** [Objective-C, Python] A quiz-based iOS app that generates its own questions using NLP techniques. Rated the first place entry in Facebook Seattle's *Summer of Hack* Hackathon.

**EveryCollegeCal:** [Objective-C] An iOS app for tracking undergraduate college calendars. Downloaded by thousands of users through the App Store. *Note: this project is no longer maintained.*

**type blog:** [Personal blog](#), with links to the aforementioned projects, academic papers, and blog posts on Python, JavaScript, etc.

## Extracurriculars

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### Introduction to Hacking

Princeton, NJ

*Co-Creator, Instructor*

*March–May 2014*

Designed and taught course for hundreds of Princeton University students focused on applied topics in programming, such as web scraping and computer security. See the [course website](#) for more.

### Computer Science Department

Princeton, NJ

*Undergraduate Grader*

*January–May 2014*

Graded programming assignments for Algorithms & Data Structures course.

### University Press Club

Princeton, NJ

*Vice-President*

*January 2013–January 2014*

Led organization of undergraduate freelance journalists, writing for local and regional newspapers.

## Languages, Technologies, & Tools

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**Expert:** JavaScript, Node.js, Express.js, React, Python, CSS, HTML

**Proficient:** Objective-C, OCaml, Java, C, C#, Git

**Knowledgeable:** Haskell, TypeScript, CoffeeScript, MongoDB, Elasticsearch, SQL

## Addendum

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My [personal website](#) contains links to every project mentioned above (most of which are available on [GitHub](#)), as well as several others (usually of a more academic variety). There, you can also find blog posts I've written on [Python implementations](#), [class attributes](#), [PhantomJS](#), and more, several of which have been featured on the front page of Hacker News, in Python Weekly, etc.