# Charles Marsh | Software Engineer

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## Education

**Princeton University** **Princeton, NJ**
*Computer Science (B.S.E.), 3.92/4.00 GPA (unweighted)* *2011–2015*
Graduated with **Highest Honors** (*Summa Cum Laude*) as a member of the **Phi Beta Kappa** and **Tau Beta Pi** honor societies. Awarded the ***Phillip Y. Goldman '86 Senior Prize***, granted by the Computer Science Department to the senior in top academic standing. Thesis in the field of computational linguistics, advised by Prof. Christiane Fellbaum, earned an A+ grade. Transcript includes five additional A+ grades, each of which required written endorsement from course instructor.

**The American School in London** **London, UK**
*H.S. Diploma, 4.03/4.33 GPA (unweighted)* *2007–2011*
Graduated as Valedictorian. 2330 SAT I, 800 SAT II Math, Chemistry, and Physics.

## 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. Built with JavaScript from 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 1600 stars and 400 forks.

**Semantic**: [Python] A library for extracting semantic information 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**: [HTML, SASS] Personal blog, with links to the aforementioned projects, academic papers, and blog posts on Python, JavaScript, etc.

## Extracurriculars

**Introduction to Side Projects** **Princeton, NJ**
*Co-Creator, Instructor* *April–May 2015*
Designed and taught course for hundreds of Princeton University students on the art of side projects, including idea generation, technical approaches, and launch tactics. See the course website for more.

**Introduction to Hacking** **Princeton, NJ**
*Co-Creator, Instructor* *March–May 2014*
Designed and taught course 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

**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

My personal website contains links to the projects mentioned above (most of which are available on GitHub), as well as several others (usually of a more academic variety). It also hosts blog posts I've written on server-side rendering with React, Python implementations, PhantomJS, and more, several of which have been featured on the front page of Hacker News, in Python Weekly, etc.