

# Alexander H. Patel

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## EDUCATION

**Harvard College**, Cambridge, MA

Bachelor of Arts, Philosophy and Mathematics, expected May 2018 (on leave 2015-2016). Minor in Computer Science. GPA: 3.56/4.0 (Philosophy: 3.85/4.0 (4 courses), Mathematics: 3.85/4.0 (4 courses)).

Relevant coursework: Operating Systems, Data Structures and Algorithms, Artificial Intelligence, Statistical Software, Discrete Mathematics, Linear Algebra, Real Analysis, Logic, Modal Logic, Abstract Algebra, Topology.

GRE M:165 V:164 W:4.0.

SAT I: M:720 V:720 R:790 (SAT II: Math II:800 Physics:800).

## COMPUTER SKILLS

*Languages:* Expert: Python, C, R, SQL. Beginner: Ruby, Javascript, Java.

*Tools:* Unix Shell, Git, Amazon AWS, NumPy/Pandas, JIRA, MySQL, Redis, Nginx, HTML/CSS, LaTeX.

## WORK EXPERIENCE

*Quantitative Software Engineer*

*September 2015 - September 2016*

**EverQuote (formerly Adharmonics)**, Cambridge, MA

- Acted as technical lead for development of real-time bidding (RTB) bidder platform. Designed and implemented high-volume, low-latency (<100ms) networking server in Python. Organized project work for team of four engineers. Coordinated technical platform integration with real-time auction exchanges.
- Implemented machine learning (esp. multi-armed bandit) algorithms for e-mail and banner display content optimization.
- Earned 2nd place in company hackathon with real-time site arrivals geographic visualization.

*Software Engineering Intern*

*Summer 2015*

**Adharmonics**, Cambridge, MA

- Built third-party ad server in Python for Google AdWords display advertising network.

*Student Campaigns Organizer*

*May 2014 - May 2015*

**Free Software Foundation**, Boston, MA

- Coordinated developer action on Javascript licensing and Digital Rights Management campaigns. Authored technical issue posts topical to the free software community.

## TEACHING

*Course Assistant*

*Spring 2016 - Present*

**Harvard University Mathematics Department**

- Teaching staff member for Math E-23a: Linear Algebra and Real Analysis I (Fall 2016) and Math 156: Mathematical Foundations of Statistical Software (Spring 2016).
- Administered weekly section and office hours; graded student R homework assignments and proof presentations.

*Teaching Fellow*

*2015-2016*

**Harvard University Computer Science Department**

- Teaching staff member for CS161: Operating Systems (Spring 2016) and CS61: Systems Programming (Fall 2015).
- Hosted weekly on-campus and virtual section and office hours. Graded and assisted with student C programming assignments and toy OS kernel implementations.

## EXTRA-CURRICULAR ACTIVITIES

The Harvard Crimson, news reporter on Harvard Business School beat

*Fall 2013 - Spring 2015*

The Harvard Crimson, programmer for website Python back-end

*Fall 2013 - Spring 2015*

Harvard Club Lacrosse, midfield player

*Fall 2013 - Fall 2014*