

Ben Kuhn

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Education

Harvard University

Cambridge, MA

Honors A.B. in Mathematics and M.S. in Computer Science expected, May 2015. GPA: 3.9.

Commonwealth School

Boston, MA

Class of 2011. Commonwealth does not rank or disclose grade point averages; transcript available on request. Qualified for American Invitational Math Exam 2009, 2011. National Merit Scholar. National AP Scholar.

Skills

Programming Languages: Most proficient in Python, CoffeeScript, Javascript, Objective-C, Java, and ActionScript. Other languages include C/C++, Haskell, HTML5/CSS, L^AT_EX, Lua, MySQL, OCaml, and PHP.

Software/Libraries: Linux environment, Emacs, Git, Mercurial, Mathematica; Django, node.js, MongoDB, jQuery.

Other: Strong writing and editing. Fourteen years classical piano, voice, music theory, and composition.

Experience

Harvard Class

Cambridge, MA — June 2012-present

- Co-created, with Billy Janitsch, a browser for Harvard University's course catalog. Harvard Class launched to rave reviews from students; in its first three days it received 2400 unique visitors and 200 registered users, and was featured in the Harvard Crimson and BostInno. <http://harvard-class.com/>
- Wrote server (PHP/MySQL), course data processor (Python/SQLAlchemy), and frontend architecture (CoffeeScript/jQuery). Co-designed and programmed user interface. Co-managed operations.

Intern, Fog Creek Software

New York, NY — June-August 2012

- Worked on Trello, a collaborative task management tool, on the server (CoffeeScript/node.js/MongoDB), iOS app (Objective-C/Cocoa), and web frontend (CoffeeScript/Backbone.js/socket.io). <http://trello.com/>
- Pushed the iOS app to a new version as the only employee working full-time on the project. Added push notifications, helped convert the app to a new API, and made significant performance improvements, including reducing disk I/O by about 90%.

Final course project (CS50)

Cambridge, MA — December 2011

- Co-designed an online collaborative game development studio. Implemented backend server in Python and Django and frontend and game engine with Javascript and JQuery. <http://www.gimblum.com/>

Developer, Noteflight LLC

Cambridge, MA — June-August 2011

- Designed and implemented an improved Javascript API for the Noteflight Flash application.
- Added functionality and API for following along in the score with external videos in the embedding page.
- Improved rendering and playback of trills, mordents, and turns.

Independent project

Boston, MA — March 2011

- Created a search engine for musical melodies, including efficient key-independent fuzzy matching, using my own adaptation of the BLAST protein-matching algorithm. <http://moogle.benkuhn.net:8080/>

Intern, Noteflight LLC

Cambridge, MA — June-August 2010

- Prototyped a port of the Noteflight rendering engine to Javascript/HTML5. Owned all client-side code.
- Added support for following along in the score with embedded YouTube videos. Provided the basis for an award-winning Boston Music Hack Day demo.