Lewis J. Ellis

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Junior at the University of Pennsylvania, seeking technical internship for Summer 2014

Work Experience

Software Engineering Intern, App.net, May - August 2013
- Restructured test suite to reduce build times by 15%
- Developed a relevancy metric for place objects and used it to improve the quality of place search results
- Migrated user search indexing from Solr to ElasticSearch
- Designed and implemented extensive improvements to annotations on API objects, making it easier for third party apps to represent relationships between posts, users, places, files, and media.

Student Developer, PennApps Labs, September 2012 - December 2013
- Build and maintain web services used by Penn's student body with Flask and Django
- Interview candidates and mentor new hires, introducing them to Python, databases, and web frameworks

Junior Counselor, Canada/USA Mathcamp, June - August 2012
- Planned and executed the camp-wide hiking trip, talent show, and feedback surveys; managed camp finances and visitor accomodations; taught campers to speedcube; made lots of liquid nitrogen ice cream
- Served as an RA and role model for campers; did whatever was necessary to make camp run

Teaching Assistant, University of Pennsylvania, January 2012 - Present
- CIS 120, a 2nd-semester course on programming patterns and data representation with OCaml and Java, Spring 2012 - Fall 2013
- CIS 121, a 3rd-semester introduction to data structures and algorithms with Java, Spring 2014
- Teach a lab section, lead course-wide review sessions, hold office hours, grade projects and exams

Education

University of Pennsylvania, Fall 2011 - Present
- Networked and Social Systems, a branch of CS focusing on applications of network theory. Expected BSE 2015. GPA 3.6.
- Coursework: Artificial Intelligence, Algorithms, Databases, Advanced Functional Programming, Crowdsourcing, Cloud Computing, Networked Systems, Theory of Networks, Network Security, Cryptography, Game Theory, Optimization Theory, Probability, Linear Algebra, Discrete/Combinatorial Math
- Organizer of **PennApps**, the largest college hackathon in the world, hosted at Penn each semester
- Lead organizer of **PClassic**, a semesterly high school programming contest which had 300 participants in Fall 2013
- Current club Ultimate player, former Penn Track & Field long jumper

Projects

- **ABCrowd** (Ongoing). Use Mechanical Turk to get quantitative feedback on a website. Users create questions and launch jobs to get feedback, ABCrowd runs them and compiles the results. Useful for sites without enough natural traffic to do effective A/B testing.
- **QuestionsForMe** (HackNY Spring 2013). Question queue for a speaking or panel event. Audience can upvote questions by donating to charity. Made in 20 hours with one teammate. Python/Flask, MongoDB, Venmo & Twilio APIs
- **Dropbox IDE** (2nd place HackRU Fall 2012). In-browser IDE which uses Dropbox as the user's workspace. Made in 21 hours with two teammates. Ruby/Sinatra, JavaScript, HTML/CSS
- **TWFarmer** (2009). Track gamestate/statistics, automate resource-farming in a web-based MMO game. PHP, MySQL, JavaScript
- **PSPNet, PSPTD** (2008). Text-based web browser, tower defense game, for PlayStation Portable. PSPTD was released to the homebrew community and downloaded over 1000 times. Lua

Technologies

- Lua, Python, Haskell, OCaml, Java, JavaScript, MySQL, Redis, ElasticSearch
- Sublime, Django, Flask, Node/Express, git, Heroku, AWS, MTurk, MapReduce
- Familiar with C++, Ruby, Common LISP, Mongo, HTML/CSS