Khoa Q.D. Tran

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EDUCATION

University of California, Berkeley — Fall 2012 - Present
Bachelor of Arts, Computer Science. In-major GPA: 3.62
Expected graduation date: December 2014

RELEVANT COURSEWORK

Data Structures	Discrete Mathematics	Database Systems	Programming Languages
Algorithms	Computer Networking	Artificial Intelligence	Applied Natural Language Processing
Computer Security	*Machine Learning*	*Statistical Inference*	*Financial Engineering*

EXPERIENCE

Research Apprentice — February 2014 - Present
Haas School of Business, UC Berkeley — Faculty Sponsor: Professor Heather Haveman

- Co-lead a team of 12 undergraduates in the "Computer Science for Social Science Research" group
- Collect price, product, and public discourse data for the Bitcoin and vintage wine markets via web scraping
- Analyze and test hypotheses & models on the emergence and maturation of product categories

Reader — January 2013 - Present
EECS Department, UC Berkeley

- Grade weekly problem sets for 500+ undergraduates and (try to) inspire them with Discrete Mathematics
- Collaborate with TAs and other Readers to assist students in weekly office hour and on online discussion forum
- Write shell scripts, tutorials, and lab solutions to make grading faster and more efficient

Computer Science Intern — June 2013 - August 2013
Ocean Tomo, LLC

- Reduced time to perform a "conflict check" by 50% by implementing the Conflict System in Play Framework 2
- Created interactive visualizations and reports with D3.js using data extracted from an Access database
- Automated full-text patent scraping and applied text mining techniques to find similar patents
- Researched and experimented with natural language processing tools & algorithms to enhance the Patent Ratings system

Course Developer — June 2013 - August 2013
EECS Department, UC Berkeley — Faculty Sponsor: Professor Umesh Vazirani

- Revised and expanded *CS70: Discrete Mathematics & Probability Theory*'s lecture notes, focusing on Mathematical Induction and its applications in Computer Science

PROJECTS

bearRec - bearrec.herokuapp.com — Python, Flask, Pattern

- A service that allows Berkeley students to search for classes related to topics they are interested in

FTES - nbviewer.ipython.org/gist/kqdtran/d380a9b88b3affa7cfeb — IPython, Graph API

- Analyzes Facebook feeds to find similar posts and most popular topics with the Natural Language Toolkit. Final Project for the Applied Natural Language Processing class at UC Berkeley

bCheck - bcheck.hp.af.cm — Python, Bottle, BeautifulSoup

- Real-time Berkeley's classroom enrollment information retrieval

Plagis — Java

- Plagiarism detector that checks for similarities among homework submissions using the Edit Distance algorithm

TECHNICAL SKILLS

Languages

- *Most experienced with*: Python, Java, Julia, Matlab/Octave, R
- *Familiar with*: HTML, CSS, JavaScript, Scala, C, C++, SML, Racket, SQL, LaTeX, Bash Scripting

Software

- *Operating Systems*: Unix/Linux, Windows
- *Frameworks & Libraries*: Play 2, Flask/Django, jQuery, D3.js, NumPy/Pandas, Hadoop/mrjob
- *Other Tools*: Git, Heroku/AppFog, AWS, Vagrant, Android, Visual Studio, Eclipse, IntelliJ, Emacs