

ALEC K. HOEY

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EDUCATION

University of California, Berkeley – College of Engineering May 2014
B.S. Electrical Engineering and Computer Science 2014
• **GPA: 3.5**

EMPLOYMENT

Google Offers – Mountain View, CA (<http://offers.google.com>) May 2013 – August 2013
Software Engineering Intern (Offers Ads Distribution Team)

- Applied massive-scale machine learning techniques to estimate conversion rates of Google Offers Ads
- Developed an extensible framework to generate various feature sets from offers data
- Created a MapReduce pipeline to join Google Offers and Google Ads to generate training data for machine learning
- Tuned models using cross-validation and experimented with different feature sets and machine learning techniques
- Built using C++

Groupon – Palo Alto, CA (<http://groupon.com>) June 2012 – August 2012
Backend Engineer (SmartDeals/Relevance Team)

- Developed large-scale, backend data analytics workflow to measure experiment effectiveness
- Compare control and experimental rankings and output into digestible form for data warehouse
- Ownership of nontrivial problem—accounting for business rules, cache changes, and cluster scheduling
- Built using Hadoop, Java, and Ruby

Magoosh – Berkeley, CA (<http://magoosh.com>) May 2011 – March 2012
Ruby on Rails Developer

- Developed Ruby on Rails app for test preparation startup
- Modeled new question types, each with custom grading logic and grading options
- Worked full-stack: from deployment scripts and server config to front-end jQuery
- Built jQuery calculator from scratch—custom evaluation rules to match GRE calculator

CS 169 Software Engineering – Berkeley, CA September 2013 – Present
Teaching Assistant

PROJECTS

WSWE (<http://whereshouldweeat.org>) May 2012 – Present

- A restaurant recommendation engine built on top of the Yelp! API
- Collaborative filtering machine learning algorithm to recommend restaurants based on personal preferences
- Built multiple table inheritance, complex list and recommendation models with Ruby on Rails
- Very modular recommendation design with advanced Ruby metaprogramming

CalTeachables September 2012 – December 2012

- A lesson plan repository for nonprofit educational organization
- Solr full-text search, multiple permission roles, full-featured admin dashboard, wiki markup, and user ratings

UC Berkeley Education Platform (edX Precursor) – Berkeley, CA February 2012
(<http://cs188.org>)
Rails Developer

COURSEWORK

Modern Statistical Prediction and Machine Learning (154)

Concepts of Probability (134)

Introduction to Machine Learning (189)

Operating Systems and System Programming (162)

Efficient Algorithms and Intractable Problems (170)

Introduction to Database Systems (186)

Software Engineering (169)

Introduction to Communication Networks (122)

Introduction to Artificial Intelligence (188)

Foundations of Computer Graphics (184)

Discrete Math and Probability Theory (70)

Great Ideas in Computer Architecture (61C)

Data Structures and Programming Methodology (61B)

Intro to Struct. and Interpret. of Computer Programs (61A)

SKILLS AND INTERESTS

Technology Strong command of Ruby, Python, C/C++, Java

Interests Photography, soccer, basketball, cooking