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

UC Berkeley Education Platform – Berkeley, CA (http://cs188.org)   February 2012

Rails Developer

- Worked with Berkeley professors Pieter Abbeel and Dawn Song on precursor to edX platform
- Integrated OpenTok API to allow students to use video chat to discuss online quizzes during 18-hr hackathon
- Modeled chat sessions to see who is online, available to talk at a given time

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

COURSEWORK

Introduction to Machine Learning (189)	Introduction to Artificial Intelligence (188)
Operating Systems and System Programming (162)	Foundations of Computer Graphics (184)
Efficient Algorithms and Intractable Problems (170)	Discrete Math and Probability Theory (70)
Introduction to Database Systems (186)	Great Ideas in Computer Architecture (61C)
Software Engineering (169)	Data Structures and Programming Methodology (61B)
Introduction to Communication Networks (122)	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