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MARC LEEF

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EDUCATION

M.S.E. *Computer Science* **Princeton University** **Fall 2015 – Present**
- Expected completion: May 2017

B.S. *Computer and Information Science* **University of Oregon** **Fall 2011 – June 2015**
- Cum Laude Honors; GPA: 3.85; **Minor**: *Biology*

EMPLOYMENT

Teaching Assistant **Princeton University** **Fall 2015 – Present**
Computer Science Department
- Responsibilities include holding office hours, grading assignments and exams, and leading discussion sections.

Software Engineering Intern **Amazon.com, Inc** **Summer 2015**
Amazon Web Services
- Designed and implemented a scalable caching layer using a search index. Used Javascript, the AWS SDK, and multiple Elasticsearch indices to create a distributed write-through caching mechanism that decreased customer latency by up to 90%. Built prototypes of potential customer-facing views using AngularJS.

Bioinformatics Intern **Affymetrix, Inc** **Summer 2014**
- Developed Affymetrix Probe Set Search (*github.com/mleef/PSS)*, a software tool for assessing the design-specific probe coverage of mRNA sequences, created using a combination of Node.js, C++, and Python.
- Improved the company's backend infrastructure by aiding in the shift from a MySQL Server platform to an Apache Solr server using Lucene for efficient indexing and search.

TECHNICAL EXPERIENCE / PROJECTS

- **ML-Server** (2015 – *github.com/mleef/ML-Server*): RESTful API for constructing and querying machine learning models. Supports Perceptron, Naïve Bayes, and Decision Tree classifiers as well as user authentication, token generation, and an account management system. Written in Java using MySQL for the backend.
- **Markovian** (2015 – *github.com/mleef/Markovian*): Lightweight Markov Network library written in Java. Supports brute force and variable elimination partitioning as well as loopy belief propagation.
- **SamParse** (2013 – *github.com/mleef/SamParse*): Calculation and visualization of RNA sequencer coverage using a sliding window algorithm written in Python and R.
- **Word Diver** (2012 – *github.com/mleef/Word-Diver*): Simple iOS game combining elements of Tetris and Scrabble written in Lua. Released on Apple App Store September 4th, 2012.

ADDITIONAL EXPERIENCE AND AWARDS

- **President, Club Tennis – University of Oregon (2014-2015):** Managed budget, arranged practices/matches.
- **Residential Assistant, University of Oregon (2012-2013):** RA for freshmen in on-campus dormitory.
- **Dean's List, University of Oregon (2011-2015):** Awarded for GPA greater than 3.75.
- **Semi Finalist, Siemens Competition in MST (2011):** Behavioral biology of drosophila flies.

Languages and Technologies

- Java, JavaScript, C++, Python, Git, SVN, MySQL, Node.js, AngularJS, jQuery, Eclipse, IntelliJ