

# Elaine K. Lee

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## Skills

**Python** (e.g. scikit-learn, pandas, numpy, scipy, boto3), **Java** (e.g. weka, guava), **R** (e.g. testthat, dplyr, glmnet), **Docker**, **Amazon Web Services** (EC2, EMR, Redshift, S3), **Spark**, **Elixir**, **Ruby**, **C/C++**, **Shell**, **SQL**

## Experience

**Avant** **September 2015 – Present**  
**Software Engineer** **Chicago, IL**

- Implemented and maintained distributed, Docker container-based workflow for training data science models on large datasets and other intensive tasks. Presented solution at O'Reilly OSCON 2016.
- Created option to run jobs in Docker for the companywide Elixir-based analytics workflow engine.
- Managed devops for the Data Engineering department, monitoring and right-sizing resources.
- Managed microservice for pulling, caching, and serving data to data scientists and models in production.

**Civis Analytics** **April 2014 – September 2015**  
**Data Scientist – R&D** **Chicago, IL**

- Developed two automated data science workflows (continuous modeling and transfer learning) for a production codebase in Python and worked with software engineers to integrate them as new features in the Civis platform.
- Trained colleagues in command line tools, internal Civis software, and Python via brownbags and one-on-one mentorship.
- Produced models and analysis for internal use.
- Ran a company-wide weekly meeting for discussing machine learning papers.

**Rifiniti, Inc. (*MassChallenge 2013 Startup Accelerator Winner*)** **June 2013 – March 2014**  
**Machine Learning Developer (*Intern: June – August 2013*)** **Boston, MA**

- Developed algorithms in R and Java for classification and missing data problems.
- Supported the full software stack from the front end (JavaScript) to back end (MySQL, Apache Tomcat).
- Recruited college students and mentored student interns.

**US Department of Defense** **July 2010 – August 2012**  
**Operations Research Analyst** **Hanscom Air Force Base, MA**

- Performed over 50 cost estimates to support reductions to Air Force-wide staffing efforts.
- Estimated the cost for the development of a theatre deployable communications system.
- Determined the most cost effective bid for a \$76 million contract as lead cost analyst.
- Co-developed and co-taught software classes (Microsoft Excel, Deltek wInsight) to 20 colleagues.

## Education

**Harvard University** **2012 – 2013**  
**AM Statistics** **GPA: 3.63/4.00**

- Project: "Analyzing Hubway Trip Data Using Principal Component Analysis (PCA)"
  - Featured in Boston.com's Brainiac Blog (August 2, 2013).

**Carnegie Mellon University** **2006 – 2010**  
**BS Mathematical Sciences – Operations Research** **GPA: 3.54/4.00**

- Minors: Computer Science, Statistics
- Judith Resnik Challenger Scholarship; University Honors, Research Honors, Dean's List 5 semesters

## Selected Honors

2016 O'Reilly Open Source Convention speaker      2012 AAUW Selected Professions Fellowship  
2015 Open Data Science Conference speaker      2009 US Department of Defense SMART scholar

## Volunteering

Inspiration Corporation cook (2016 – present)  
Somerville Math Fund activities coordinator (2012 – 2014)  
CMU Alumni Admissions interviewer & college fair representative (2010 – 2013)