Sonia Phene

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EDUCATION

Brown University, 4.0 GPA, Bachelor of Science in Computer Science **Providence, RI, Class of 2015**

- Relevant courses include Web Applications, Data Science, Artificial Intelligence, Computer Systems

COMPUTER ENVIRONMENT

- Languages: Proficient in Java, Python, Javascript; experience in C, R, Matlab, HTML/CSS, STATA
- Operating tools, systems: Proficient in Eclipse, Intelli J, Git, Maven; comfortable with Linux, Mac, and PC

INDUSTRY EXPERIENCE

Zynga, Software Engineering Intern **San Francisco, CA, Summer 2014**

- Coded in R, Java to write a scalable (for millions DAU data) implementation of Gaussian process regression
- Used this regression to personalize the difficulty of a game level for each player based on player's skill level
- Led the machine learning part of dynamic difficulty tuning; coordinated with game team, data scientists

Google, Android Camp Participant **Mountain View, CA, June 2013**

- Coded in Java and XML using Eclipse and the newly-released Android Studio to develop Android Apps
- Participated in rigorous workshops about mobile app development and creating good user interfaces
- Developed an Android game using Google APIs to let users guess locations of pictures their friends share

Open Technology Institute at the New America Foundation, Intern **Washington, DC, Summer 2013**

- Participated in the development of a wireless mesh network that employs user devices to enable communication between nodes or allow access to the Internet through one of the nodes
- Coded in Python on the user interface to help develop this open source communication tool

U.S. Army Research Office, Undergraduate Research Apprenticeship Program **Washington, DC, Summer 2012**

- Worked on the formulation of (stochastic) optimization models for the design of bike-sharing networks
- Developed a real-world, applicable solution to the problem of redistribution for 1600 bikes at over 175 stations using actual data from the Capital Bikeshare network in DC and programming in AMPL

PROJECTS

Yelp Business Rating Predictor **Spring 2014**

- Wrote an implementation of K-Nearest Neighbors (which outperformed scikit-learn's implementation) using 16K Yelp businesses to estimate rating based on location/categories, performed with 81% accuracy

Web Application for "Connactive" **Spring 2014**

- Built website to connect travelers with locals by posting and booking trips; coded in Node.js and Javascript

Movie Recommendation System **March 2014**

- Used Amazon Elastic MapReduce, python to recommend similar movies based on ratings of 190k movies

Face Detector **December 2013**

- Coded in MATLAB to create a face detector with 90.8% accuracy using Histogram of Gradients features

RELEVANT EXPERIENCE

Brown Computer Science Department, Teaching Assistant **Providence, RI, August 2013-Present**

- Head TA for CS15, class of 300+ students and staff of 34 TAs; also TA for data structures/algorithms class
- Helped students design and debug large (~1000 lines) Java projects, taught weekly sections, ran labs

Brown Robotics Lab, Research Assistant **Providence, RI, January 2014-Present**

- Coded in C and used ROS to develop a relay system for communicating with robots

Brown *Women in Computer Science* Mentor **Providence, RI, August 2013-Present**

- Mentored underclassmen and held weekly campus events/discussions to get people excited about CS

CS Conferences and Hackathons

- Invited to attend Google I/O and Google Research Lab 2014, presented at Bay Area Women in Analytics Meetup 2014; participated in Graphlab Conference 2014, Harvard WeCode 2014 Hackathon, Hack@Brown

HOBBIES

Giving campus tours and information sessions at Brown, writing scripts to automate tasks, coding solvers for puzzles like Sudoku/Scramble, reading articles about AI