# Josh Kelle

joshkelle.com github.com/jkelle

## Education

#### The University of Texas, Austin

Overall GPA: 3.91

Bachelor of Science, Computer Science, Turing Scholars Honors Master of Science, Computer Science

December 2015 May 2017

### **Technical Skills**

Proficient in: Python, Java

Tools: Hadoop, Hive Comfortable with: C/C++, HiveQL NumPy, SciPy, matplotlib

Exposure to: R, MATLAB Mesos

# **Experience**

**Apple Inc.**, Applied Machine Learning, Intern (Cupertino, CA)

Summer 2015

- Designed and implemented a better model for product recommendations on the Apple Online Store
- Technologies: Hadoop, Hive, Python, Java

**Apple Inc.**, iCloud Application Engineering, Intern (*Cupertino, CA*)

Summer 2014

- Designed and prototyped a cluster management system that auto-scales in response to resource demand
- Proposed new architecture for a specific application to make use of this new auto-scaling infrastructure

Applied Research Laboratories, Space & Geophysics Lab, Honors Scholar & Researcher (Austin, TX)

Summer 2013 - Spring 2015

- Implemented and evaluated new algorithms for modeling the ionosphere
- Analyzed large amounts of GPS satellite data with an emphasis on data visualization

#### **Projects**

#### **Computer Science Educational Materials and Mentorship**

Summer 2015

- Developing exercises and sample solutions to reinforce students' data structures and algorithms skills
- Meeting regularly with a student/friend to foster their growth as a computer scientist

Fifteen Puzzle Game Al Fall 2014

- Used multiple A\* searches in serial to tackle enormous state space
- Compared different search strategies and methods of dividing the search into phases

The Pacman Projects, implement fundamental Artificial Intelligence concepts

Spring 2014

- A\*, minimax, expectimax search; reinforcement learning; classification; probabilistic inference
- Won first place in the Capture the Flag tournament among other honors Al students

**PolyDrop**, a game for the Leap Motion Controller that won first place in a hackathon competition

Spring 2014

- Players catch falling polygons and balance them on a platform controlled with their hand
- Has over 40,000 downloads on the Airspace App Store

LetterPress Game AI Winter 2012

- Designed effective evaluation function to assign a value to any game state
- Graphically displays best possible game states one turn into the future

#### Research

#### Intelligent Feature Extraction for Egocentric Video Classification

Fall 2014 - present

Working with Dr. Kristen Grauman to develop a thesis in the areas of computer vision and machine learning

# **Selected Coursework**

Honors Machine Learning and Vision	Fall 2015
Honors Statistics	Spring 2015
Honors Artificial Intelligence	Spring 2014

#### **Awards**

Winner of Compare Metrics/Leap Motion hackathon	2014
Honors Scholar of College of Natural Sciences	2013 - 2015
Honors Scholar of Cockrell School of Engineering	2013