Josh Kelle

github.com/jkelle joshkelle.com

Education

The University of Texas, Austin

December 2015

Overall GPA: 3.92

Bachelor of Science, Computer Science, Turing Honors Scholars

Business Foundations Certification Program

Technical Skills

Proficient in: Python, Java

Tools: Bash, Git, JIRA, unittest

Comfortable with: C++

NumPy, SciPy, matplotlib, MATLAB Apache Mesos & Aurora, Vagrant

Exposure to: R, C, HTML/CSS/JavaScript, SQL

Projects

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

Spring 2014

The Pacman Projects, learn and implement fundamental Artificial Intelligence concepts

A*, minimax, expectimax search; reinforcement learning; classification; probabilistic inference Won first place in the Capture the Flag tournament among other honors AI 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 30,000 downloads on the Airspace App Store

LetterPress Game Al 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

Physics Simulator, models gravitational motion and elastic collisions

Spring 2012

User plays with gravity, modifying particles and gravitational fields with simple GUI

Helps visualize conservation of momentum and the inverse square law

Experience

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
- Presented my work to managers and other engineers in a formal setting

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

Summer 2013 - present

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

UT Engineering Department, Tutor (Austin, TX)

Spring 2013

- Selected by professor to tutor his Introduction to Chemical Engineering Analysis course
- Worked with students individually and in groups to assist with understanding abstract concepts

Institute for Advanced Technology, Science and Engineering Intern, Student Researcher (Austin, TX)

Summer 2011

- Studied and analyzed blast characteristics of electric arc discharges in air
- Presented formal, comprehensive report to panel of judges; awarded honorable mention

Research

Action Prediction for Egocentric Video

Fall 2014 - present

Working with Dr. Kristen Grauman to conduct computer vision research and develop a thesis

Awards

Winner of Compare Metrics/Leap Motion hackathon Honors Scholar of College of Natural Sciences Honors Scholar of Cockrell School of Engineering Honorable Mention Institute for Advanced Technology Presentation

2013 & 2014

2013

2014

2011