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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
Comfortable with: C++
Exposure to: R, C, HTML/CSS/JavaScript, SQL

Tools: Bash, Git, JIRA, unittest
NumPy, SciPy, matplotlib, MATLAB
Apache Mesos & Aurora, Vagrant

Projects

Fifteen Puzzle Game AI — 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, learn and 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 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 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

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 — 2014
Honors Scholar of College of Natural Sciences — 2013 & 2014
Honors Scholar of Cockrell School of Engineering — 2013
Honorable Mention, Institute for Advanced Technology Presentation — 2011