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Josh Kelle

joshkelle.com
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Education

The University of Texas, Austin

5-Year Integrated Bachelors & Masters, Computer Science — May 2017
Overall GPA: 3.92

Technical Skills

Proficient in: Python, Java
Comfortable with: C++, HiveQL
Exposure to: R, MATLAB

Tools: Hadoop, Cascading, Hive
NumPy, SciPy, matplotlib
OpenCV

Experience

Pinterest, Search Quality, Intern (*San Francisco, CA*) — Summer 2016

- Improving search relevancy by personalizing results based on user demographics
- Performed data analysis to identify trends and opportunity areas

Apple, Applied Machine Learning, Intern (*Cupertino, CA*) — Summer 2015

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

Apple, 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

Research

RoboCup (Robot Soccer) (*Advised by Dr. Peter Stone*) — Spring 2016

- Designed computer vision algorithm for soccer ball detection to run on low-powered Aldebaran Nao robot
- Our team won first place in US Open, second place in international RoboCup competition in Leipzig, Germany

Intelligent Feature Extraction for Video Activity Classification (*Advised by Dr. Kristen Grauman*) — Fall 2014 - present

- Devoloping a master's thesis in the areas of computer vision and machine learning

Projects

Content-Aware Image Resizing — Fall 2015

- Implemented an efficient algorithm to expand or shink an image without warping content
- Computes a path of pixels to add or remove by minimizing the cumulative image gradient along the path

The Pacman Projects, implement fundamental Artificial Intelligence concepts — Spring 2014

- A*, minimax, expectimax search; reinforcement learning; classification; Bayesian 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 60,000 downloads on the Airspace App Store

Selected Coursework

Graduate Machine Learning (*Dr. Dana Ballard*) — Spring 2016
Graduate Statistics and Data Science (*Dr. Chandrajit Bajaj*) — Spring 2016
Graduate Autonomous Robots (*Dr. Peter Stone*) — Fall 2015
Honors Machine Learning and Vision (*Dr. Kristen Grauman*) — Fall 2015
Honors Statistics (*Dr. James Scott*) — Spring 2015
Honors Artificial Intelligence (*Dr. Kristen Grauman*) — Spring 2014

Awards

Winner of Compare Metrics/Leap Motion hackathon — 2014
Honors Scholar of College of Natural Sciences — 2013 - 2016
Honors Scholar of Cockrell School of Engineering — 2013