Pranav Rajpurkar

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EDUCATION

STANFORD UNIVERSITY
BS in Computer Science with Honors
Expected June 2015
Cum. GPA: 3.9/4.0

COURSEWORK

UNDERGRADUATE
Artificial Intelligence
Convex Optimization
Machine Learning
Mobile Music
Natural Language Processing
Readings in Algorithms

INTERESTS

Artificial Intelligence
Human-Computer Interaction
Web Applications
Music

RESEARCH

DEEP-LEARNING LAB Prof. Andrew Ng
Jan 2013 – Present | Undergraduate honors researcher

- Completing undergraduate honors research, which explores how crowdsourcing can be leveraged to build neural networks for reliable autonomous driving.
- Projects in areas of Computer Vision, Graphics, Artificial Intelligence, and Human-Computer Interaction
- Built mapping, crowd-labelling, and neural-network testing systems.

HUMAN-COMPUTER INTERACTION LAB Prof. Michael Bernstein
June 2014 – Sept 2014 | CS undergrad research intern

- Explored how we could teach a computer enough about human actions to enable predictive application interfaces that could, for example, recommend an ice cream upon learning that a person was having dinner.
- Drew on modern techniques in natural language processing and information extraction, built parallel systems that could process gigabytes of data, and contributed to HCI's emerging field of context-aware computing.

INDEPENDENT RESEARCH PROJECTS

SUPERVISED MUSICAL CHORD RECOGNITION Co-built
Dec 2013 – Present
Machine-learning based online chord-recognition system that achieves a highly competitive 99.1% accuracy on a benchmark dataset.

EDUSALSA Co-built
2014 – Present
Edusalsa is a web tool for helping Stanford students map out their educational journey. Students can find classes that match personal interests, and explore classes that build upon knowledge acquired from a course history.

VOCALET Co-built
2013 – Present
Vocalet provides a simple interface for singing enthusiasts to enjoy, making it easy to explore karaoke and cover versions of songs.

PICLET Co-built
2012 | Third place at Stanford ACM Hackathon
Piclet provides an interface for users to view facebook photos in order of popularity.

PUBLICATIONS

- Fast, E., Rajpurkar, P., and Bernstein, M. Text Mining Emergent Human Behaviors for Interactive Systems (in submission to CHI)
- Rajpurkar, P. Leveraging Crowdsourcing To Train Neural Networks for Reliable Autonomous Driving (undergraduate honors thesis, expected May 2015)
- Rajpurkar, P., Girardeau, B., and Migimatsu, T. A Supervised Approach To Musical Chord Recognition (in preparation for submission)