Jeremy Irvin

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Education

Stanford, M.S. Computer Science

Sep 2016 - June 2018

Artificial Intelligence Track

UC Santa Barbara, B.S. Computer Science and B.S. Mathematics, 3.97/4.00 GPA 2012 - June 2016 College of Creative Studies (CCS)

Accelerated B.S. Program - "A Graduate School for Undergraduates"

• Regents Scholar, ranked top of class (Nineteen A+ grades in core classes)

Experience

Software Engineer Intern, Microsoft

Summer 2016

Bing Predicts

- Created a model to predict the MTV Video Music Awards's using Bing search and social data
- Wrote Python for scraping, feature engineering, model testing, and MART Gradient Boosting training
- Additionally implemented LSTM's for time series forecasting using Keras and CNTK

Software Engineer Intern, Microsoft

Summer 2015

Satori (Knowledge Graph) Within Bing

- Developed an algorithm to detect subtle entity relations in an immense ontology and rank them by novelty
- Wrote C# and internal query language as part of an R&D ML pipeline
- Increased run-time by two orders of magnitude, allowing for efficient discovery of the relations

Intern, Silicon Valley Education Foundation

Summer 2013

Stepping Up To Algebra

Intervention program to help students complete Algebra I and increase student aspirations to attend college.

- Instructed and tutored a large group of at risk students in basic algebra
- Helped plan and conduct the final cumulative Parent-Teacher college preparation meeting

Research and Projects

Research Assistant, UCSB

September 2015 - June 2016

Undergraduate Senior Thesis with Professor Moscoso

- Applying dynamical systems and causal modeling techniques to linguistic data (using Python and R) to understand the underlying complex nonlinear patterns of language development in children
- First author paper accepted by Cognitive Science and second author paper submitted to ACL
- UCSB Undergrad Research Colloquium Best Humanities Research Prize Winner

Co-lecturer, UCSB Winter 2016

- Co-taught a course on ML, NLP, and Deep Learning
- Created over 250 lecture slides
- http://computer-learning.github.io/class/

Skills

- Languages: Python, C, R, C#, C++
- Mastery of Python, including data munging, plotting, and many machine learning algorithms in scikit-learn
- Experience with web crawling using Scrapy and Selenium
- Proficient with SQL and MySQL, especially experienced with relational databases
- Copious experience with source control using Git

Noteworthy Courses

- Computer Science: Advanced Data Mining and Neural Networks, Machine Learning, Parallel Computing
- <u>Mathematics</u>: Linear Programming and Optimization, Linear Algebra, Multidimensional Analysis, Probability and Statistics, Graph Theory, Stochastic Processes
- Supplemental Data Science Courses: Stanford CS224d Deep Learning for NLP, Stanford CS229
 Machine Learning, UToronto Neural Networks, Stanford Natural Language Processing

References

Dr. Yuqing Gao Microsoft Distinguished Engineer yuga@microsoft.com Dr. Maribel Bueno UCSB Professor, Head of CCS Mathematics (805) 893-5245 mbueno@math.ucsb.edu