

Nelson Liu

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EDUCATION	University of Washington , Seattle, Washington USA B.S., Statistics, B.S., Linguistics. Cumulative GPA: 3.79 Expected graduation date: June 2019
EXPERIENCE	University of Washington Computer Science and Engineering , Seattle, Washington USA <i>Undergraduate Researcher</i> September 2015 - present Working on various machine learning and natural language processing research problems. <ul style="list-style-type: none">• Built a neural model for Supreme Court case prediction the text data of amicus briefs.• Currently creating models for induction of non-arbitrary form meaning associations in language from large scale corpora.• Advisor: Professor Noah A. Smith University of Washington eScience Institute , Seattle, Washington USA <i>Software Engineering Intern</i> September 2016 - Present Contributing to pomegranate, a probabilistic graphical modelling library for Python. <ul style="list-style-type: none">• Writing code, usage examples, documentation, thorough unit tests, and improving testing infrastructure. scikit-learn <i>Google Summer of Code Student Developer</i> May - August 2016 Contributing to the popular Python machine learning library scikit-learn (13K+ Github stars) by implementing various enhancements to decision tree module (adding new impurity splitting criterion and tree pre- / post-pruning). Massachusetts Institute of Technology CSAIL , Cambridge, Massachusetts USA <i>Research Intern</i> June 2013 - September 2014 Wrote Scheme scripts to dynamically extract JPL and U.S. Election Atlas data for use in the START natural language question answering system and worked on its backend, Omnibase. <ul style="list-style-type: none">• Advisor: Professor Boris Katz
SELECTED PERSONAL / OPEN SOURCE PROJECTS	scikit-learn <i>Contributor</i> November 2015 - Present Popular machine learning toolkit for Python. I contribute Python and Cython patches to the project and review user-submitted pull requests. pomegranate <i>Contributor</i> September 2016 - Present Probabilistic graphical model toolkit in Python, focusing on efficient Cython implementations of hidden Markov models and probability distributions but also including discrete Bayesian networks, finite state machines, and general mixture models. ASLSpeak <i>Creator, Best Use of Microsoft Tech / Best Use of Data @ DubHacks 2015</i> October 2015 Trained an artificial neural network classifier to translate sign language gestures from a Leap Motion to audio spoken on a computer.
HONORS AND AWARDS	Scipy Scholarship, 2016 Best Use of Microsoft Technology / Best Use of Data, DubHacks 2015 Winner, Hack The Dot Seattle, 2015 Finalist, AngelHack Seattle, 2015 Winner, Lockheed Martin Code Quest Sunnyvale, 2015 Winner, Improving MIT Award, MIT BitComp, 2014
TECHNICAL SKILLS	<ul style="list-style-type: none">• Languages / Tools: Python, Cython, Java, git, some use of Unix shell scripts• Operating Systems: Unix/Linux, OS X.