CHESTER HOLTZ

373 Riverbank Rd. Stamford, CT 06903 ⋄ 914-659-0117 ⋄ chesterholtz@gmail.com
https://chesterholtz.me ⋄ https://github.com/choltz95 ⋄ https://linkedin.com/in/choltz95

EDUCATION

University of Rochester, Rochester, NY

· Honors B.S. in Computer Science (Artificial Intelligence Track) with Minor in Mathematics *June, 2017*

SKILLS

Languages	Python(TensorFlow, Numpy, scikitlearn, NLTK) > Java = C/C++ > JavaScript
Tools	Git, Vim, Bash, Eclipse, Excel, LaTeX, Mathematica, Amazon MTurk, Moses

RESEARCH AND WORK EXPERIENCE

Research Experience *University of Rochester*

· Visual Intelligence & Social Media Analytics (VISTA) Lab: Working as a Research Assistant supporting Professor Jiebo Luo's research group in projects involving computer vision, big data analysis, data mining, and machine learning. Past work involved supporting the Simon School of Business and the Department of Clinical and Social Sciences in Psychology. Current work involves studying how Autism Spectrum Disorder can be detected based on text-based communication between doctors and patients.

· Social Networks, AI, and Public Health (SNAP) Lab: Working as a Research Assistant supporting Professor Henry Kautz's research group in projects involving computer vision, big data analysis, data mining, and machine learning. Current work involves studying the way language is used in ways other than simply communicating information, such as humor and persuasion in the context of politically biased news sources.

· Rochester NLP Group: Working as a Research Assistant creating structured Human Intelligence Tasks (HITS) for projects involving machine learning and natural language understanding. Current work involves studying how deep learning techniques can be leveraged for story understanding - specifically for story ending prediction.

· Simon School of Business: Supported Professor Sudarshan and his students' research in projects involving the application of various machine learning and NLP techniques to issues in business and political science (Form 10-k validation).

TA & Tutor Experience *University of Rochester*

· Machine Learning (graduate/undergraduate, Spring 2017)
· Data Mining (graduate/undergraduate)
· Artificial Intelligence
· Data Structures and Algorithms
· Introduction to Computer Science
· The Art of Programming
· CSUG Tutor for MTH201 Introduction to Probability and MTH150 Discrete Mathematics

JP Morgan Chase Summer, 2016 *New York, NY*

· Risk & Quantitative Technologies Intern: Designed and built framework to do analysis on business processes. Implemented approximate graph-similarity metric (Dijkman et al., 2009, 2011) to compare process models. Implemented system to do ETL and visualize structured and semi-structured data. Transformations and graph algorithms were written in Java. Used the QlikView Ajax API for the browser-based dashboard.

SELECT PROJECTS (NON-COURSEWORK)

Robust Emoji Embedding and Prediction

· Currently working on an effective and novel embedding framework for emoji. My work involves factorizing the asymmetric co-occurrence matrix and effectively handling the multi-sense nature of emoji across different contexts and cultural trends.

Robust Autism Spectrum Disorder Detection

· Goal: Predict Autism Spectrum Disorder among children undergoing diagnosis procedures.
· Implemented and applied OCR, de-identification, and de-skewing algorithms to extract natural language from scanned semi-structured and unstructured documents.
· Extracted lexical features, topic model features (LDA) and distributed features (doc2vec RNN features).
· Built ASD detection and keyword suggestion system (l_1, l_2-regularized svm, upsampling).

Philosoph Trump

· Generated tweets. Implemented and applied Andrej Karpathy's Char-RNN on data collected from Trump's Twitter and Reddit's /r/philosophy subreddit. Current work involves training a query-response SMT model on a corpus composed of 5m tweets and Reddit comments.

Lisp GC

· Performed analysis and wrote paper on three classic garbage collection algorithms. Implemented parser, evaluator, REPL etc. and 3 garbage collectors Cheneys algorithm, Mark-Sweep with Tri-color marking, and Knuths classical Lisp 2 algorithm in C++.

SELECT ACADEMIC EXPERIENCES

Computer Science

· Advanced Machine Learning and Optimization (graduate)
· Machine Learning
· Design and Analysis of Algorithms
· Data Mining
· Artificial Intelligence
· Autonomous Mobile Robots
· Honors Research Seminar

Mathematics

· Calculus and Linear Algebra (Honors)
· Real Analysis
· Probability Theory
· Statistics

Select Papers

· A Machine Learning-based Approach to Autism Spectrum Disorder Detection from Semi-Structured and... (in submission)
· A Refutation of the Clique-Based P=NP Proofs of LaPlante and Tamta-Pande-Dhami (Arxiv: 1504.06890)
· Comparative Analysis of Classic Garbage-Collection Algorithms for a Lisp-like Language (Arxiv: 1505.00017)

HONORS

Dean's Scholarship *University of Rochester*

· Awarded Deans Scholarship for past leadership and academic achievements at U of R

DandyHacks 2016 *University of Rochester*

· Ranked first in data science and machine learning category at U Rochester's DandyHacks hackathon for Philosoph Trump Twitter bot.