

Alexandra DeLucia

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📍 Baltimore, USA

Technical Skills

Languages Python. Familiar: Java, C

Data Science Python (pandas, scikit-learn, pytorch), machine learning

Web Dev HTML5, CSS, Bootstrap, MySQL. Familiar: JavaScript/jQuery, Jekyll, PHP

Research

Forecasting Civil Unrest Events with Twitter, Johns Hopkins Present
Model a population using Twitter data to predict disruptive political events, such as riots and protests. Joint effort with Johns Hopkins University Applied Physics Laboratory's Crystal Cube project.

Decoding Methods for Narrative Generation, Johns Hopkins 2020
Evaluate the performance of neural chatbot response decoding methods on neural narrative generation. Also designed and executed surveys for the human evaluation portion of the project (via Amazon Mechanical Turk). Began as a class project from Automated Discourse (Spring 2020).

Revere: Predicting HPC Job Failure, Los Alamos National Lab 2017–2018
Created a proof of concept model to predict the outcome of a high performance compute (HPC) job based on engineered features from its corresponding system log messages. The features came from the fields of systems and natural language processing. This work is being converted into a production system at LANL, called *Revere*.

Detecting Similar Help Desk Tickets, Los Alamos National Lab 2019
Analyzed HPC Consult tickets for problem trends and created a proof of concept model for detecting similar tickets. Worked with the LANL HPC Consulting Team on ideas for a new ticketing system.

See www.cs.jhu.edu/~aadelucia/research for a full list of publications, workshops, and presentations.

Education

Johns Hopkins University, PhD in Computer Science 2019–Present
Focus on machine learning and its applications to unstructured text, specifically social media data. Advised by [Mark Dredze](#) in the Center for Language and Speech Processing (CLSP).

Rollins College, B.A. in Computer Science and Mathematics 2018
Graduated *Summa cum laude*. Senior thesis continued work from Los Alamos National Lab internship and was advised by Julie Carrington *High Performance Computing Job Outcome Prediction by Mining System Logs*. Received multiple awards:

- Outstanding Senior in Science and Mathematics Division (2018)
- William R. and Marcelyn L. Gordon Mathematic Award (2017)
- Junior and Senior Award for Outstanding Academic Achievement in Computer Science (2017/2018)

don Quijote Language School Summer 2015
Studied Spanish at a summer abroad program in Madrid, Spain through Rollins College.

Teaching and Mentoring

Teaching Assistant - Natural Language Processing, Johns Hopkins Fall 2020
TA for [Jason Eisner's NLP course](#). Duties included holding office hours, managing course-assistants, grading exams, and helping design homeworks.

Mentor - Justin Sech, Johns Hopkins 2020
Advised an undergraduate student on a research project, which culminated in a W-NUT EMNLP paper.

Computer Science Education Reading Group, Johns Hopkins Spring 2020

Reading group with teaching faculty with a focus on how to conduct CS education research.

Los Alamos Makers Python Club, Los Alamos, NM 2019
Taught an introductory Python course once per week at the makerspace in Los Alamos, New Mexico during my LANL internship. Course structure was an interactive session with a Python course from [The Great Courses](#), where we followed along with the video and pause as needed to explain concepts.

Google IgniteCS Grant Program, Rollins College 2017
Teach basic coding concepts ([MIT Scratch](#)) to elementary school kids in the Orlando school system. Met once per week after school.

Tutoring and Writing Center, Rollins College 2017–2018
Assisted struggling peers in understanding computer science and mathematics course material.

Additional Work Experience

IT Business Systems Analyst Intern, NextEra Energy Resources Summer 2016
Interned with the Power Generation Division/Information Management Applications Team at the Juno Beach location. Participated in a Big Data Proof of Concept to switch from Oracle to a near-real time streaming stack using Kafka, Spark, and Cassandra. Certified Six Sigma Yellow Belt.

Work Study: Telecommunications, Rollins College Information Technology 2016–2017
Set up voice and data networks by running, pulling, and terminating cables and installing telecommunications equipment.

Work Study: User Services, Rollins College Information Technology 2015–2016
Assisted customers with I.T. issues in person and over the phone and created detailed “tickets” with the customer’s issue, which were sent to the technicians. Learned patience and other interpersonal skills from interactions with frustrated customers.

Campus and Community Involvement

Student-Faculty Liaison Committee, Johns Hopkins 2020–Present
Convey concerns from students to a faculty representative and discuss possible solutions. Also organize town halls for community discussions (CLSP-specific).

CLSP Visit Weekend Committee, Johns Hopkins 2019–Present
Assist the planning and execution of the PhD visit weekend for prospective students.

ACM Student Chapter President, Rollins College 2016–2018
Coordinated field trips, guest speakers, social events, and student-lead workshops with fellow officers to further peers’ computer science knowledge and experience outside of the classroom.

Full STEM Ahead Immersion, Rollins College Information Technology March 2016
Volunteered at an international school in DeKalb, Georgia and taught English and Math to newly immigrated children. Experience was offered through Rollins College as an alternative Spring Break.

Personal Interests Reading, Photography, Hiking, Scuba Diving