

Akshita Bhagia

<https://akshitab.github.io>

Machine Learning, Deep Learning, Natural Language Processing

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EDUCATION

- **University of Massachusetts, Amherst** Amherst, MA
Master of Science in Computer Science; GPA: 4.00/4.00 Sep 2018 – May 2020
- **Dhirubhai Ambani Institute of Information and Communication Technology** Gandhinagar, India
Bachelor of Technology in Information and Communication Technology; GPA: 8.95/10 Jul 2011 – May 2015

RELEVANT COURSES

Machine Learning, Neural Networks, Deep Learning for NLP, Systems for Data Science, Advanced Algorithms

EXPERIENCE

- **Cerebellum Capital** San Francisco, CA
Machine Learning Intern May 2019 - Aug 2019
 - Adapted state-of-the-art deep learning models for financial time-series forecasting using Keras and Tensorflow.
 - Built a comparison tool to identify discrepancies in datasets.
- **InFoCusp** Ahmedabad, India
Lead Platform Development Engineer Feb 2018 - Jun 2018
Research Programmer Jul 2015 - Jan 2018
- **Graphical Research and Computing Environment**
 - Engineered the core infrastructure of a data science platform used for R&D as well as production of financial models.
 - Added multi-language support (Python, Matlab, R, Julia, Markup) for defining computations.
 - Implemented a parallel execution architecture for processing data-flow chains with complex inter-dependencies.
- **Figitizer**
 - Mentored an intern on a project to create editable flowcharts from flowchart images using machine learning.

SKILLS

Python, Pytorch, scikit-learn, Keras, Tensorflow, spaCy, Git, HTML, JavaScript, C++, Mongo, MySQL, Java

SELECTED PROJECTS

- **Answering questions about Roman art history** Sep 19 - Present
Advised by: Prof. Mohit Iyyer, Prof. Eric Poehler
Working on constructing dataset and neural models to explore art and architecture of Pompeii (ancient Roman city) using NLP and CV techniques.
- **Improving crowd-sourced annotations in biomedical text (Scripps Research)** Jan 19 - May 19
Advised by: Prof. Andrew McCallum, Dr. Andrew Su (Scripps Research)
Used Markov chain Monte Carlo methods to improve crowd-sourced annotations for disease and phenotype identification in bio-medical text, by modeling the bias of annotators and true labels of entities, improving NER F1-score by 8 points.
- **Neural Machine Translation using Structural Linguistic Information** Jan 19 - May 19
Implemented a Transformer model for German-English translation. Achieved an improvement of 1.4 BLEU score by augmenting the transformer with linguistic information (BLEU - 28.8).
- **Image classification of protein samples** Sep 18 - Dec 18
Built models for a multi-class, multi-label classification task to identify mixed patterns of proteins using ResNets. Accepted to the ACM Student Research Competition at Grace Hopper Conference 2019.

POSITIONS OF RESPONSIBILITY

- Master's chair for CSWomen UMass; responsible for handling monthly travel grants (Feb 2019 - Present).
- Grader for Programming with Data Structures (Fall 2018), Neural Networks (Fall 2019).

AWARDS AND ACHIEVEMENTS

- Recipient of the AnitaB.org Grace Hopper Conference Scholarship 2019.