

# Ali Turfah

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📄 aturfah.github.io

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## Education

- Sept. 2014 to April 2018 **B.S.E. in Data Science**, *University of Michigan*, Ann Arbor, MI, USA.
- Minor in Mathematics
  - GPA: 3.31 *Cum Laude*
  - President, Michigan Biological Software Team
  - Awards/Honors:
    - Dean's Honor List - Fall 2017, Winter 2018
    - University Honors - Fall 2017, Winter 2018
    - Gold Medalist - International Genetically Engineered Machine Competition 2016, 2017
    - Best Software Award - International Genetically Engineered Machine Competition 2016
- Sept. 2019 to Present **M.A. in Statistics**, *Columbia University*, New York, NY, USA.
- Expected Jan 2021

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## Experience

- June 2018 to July 2019 **Data Scientist**, *Algo.ai*, Troy, MI, USA.
- Lead design and implementation of new forecasting modules, improving accuracy by 12% over original forecaster
  - Appointed customer-facing technical lead of behind-schedule demand planning project, successfully completing the project on time by incorporating new development and requirements-gathering practices
  - Optimized and corrected SQL in daily ETL processes, lessening system strain and reducing processing errors
  - Mentored new employees through on-boarding process with pair programming exercises, overviews of relevant statistical concepts, and one-on-one meetings to discuss progress
- May 2018 to January 2019 **Student Researcher**, *University of Michigan*, Ann Arbor, MI.
- Independent research under Dr. Yves Atchade to explore multinomial bayesian models for cancer-type classification.
- Researched literature on similar models and analysis of reverse phase protein array (RPPA) data
  - Derived and implemented preliminary classification model, including optimizations for computational efficiency
  - Enhanced original model using spike-slab priors to account for sparsity, in addition to Polyagamma augmentation to yield a closed form posterior
- September 2017 to April 2018 **Research Assistant**, *Center for Molecular Imaging*, Ann Arbor, MI, USA.
- Student position to support Dr. Craig Galban and his team in medical imaging data analysis.
- Designed and implemented application to automate processing of new data sets, saving time and reducing errors
  - Built tool consolidating all image analysis scripts into single view, streamlining process flow
  - Assist in the preparation of incoming datasets, including orienting, rotating, and cropping of images
- May 2017 to August 2017 **Machine Learning Engineering Intern**, *Algo.ai*, Troy, MI, USA.
- Integrated statistical clustering methods into API, enabling on-demand analysis of store performance data
  - Developed proof-of-concept system to automate unit testing, simplifying deployment and reducing bug reports
  - Wrote web scraper to augment available customer data using information from Rotten Tomatoes and IMDB
  - Built process to export customer data in email and powerpoint formats, allowing results to be shared in a simple and intuitive manner
- January 2017 to December 2017 **Student Researcher**, *ProQuest*, Ann Arbor, MI, USA.
- Student-run research project to improve the pharmaceutical literature review process using machine learning.
- Researched natural language processing literature to determine appropriate algorithms; final model used GloVe embedding with an LSTM architecture to determine if an article should be reported to the FDA
  - Designed data normalization process to simplify training and streamline implementation of production system
  - Implemented final algorithm to perform document classification, achieving 80% precision and 96% recall
  - Organized meetings with team members, company sponsors, and faculty advisers to report and present progress

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## Additional

- Proficient in Arabic, ranked 9th in 2014 national French competition Le Grand Concours
- Passionate about teaching, have worked as a volunteer math tutor since 2011
- Enjoy NBA basketball, rooting for the Toronto Raptors since 2012