

# 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*
- Awards/Honors:
  - Dean's Honor List - Fall 2017, Winter 2018
  - University Honors - Fall 2017, Winter 2018

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 Polygamma 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, retrieving movie meta data information including genre, title, box office, director, and audience response
- 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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## Extra-Curricular Activities

October 2015 to April 2018 **President**, *Michigan Biological Software Team*.

- Gold Medalist at International Genetically Engineered Machine (iGEM) Competition 2016, 2017
- Best Software Award at iGEM Competition 2016

January 2016 to March 2016 **Workshop Leader**, *Canton Public Library*, Canton, MI, USA.

- Organized and delivered superhero themed chemistry workshop to elementary school library patrons

January 2015 to **Webmaster**, *Michigan Biological Software Team*.  
August 2015   o Bronze Medalist at iGEM Competition 2015

## Community Service

2012 to Present **Mathematics Tutor**, Dearborn, MI, USA.  
Free tutoring for college math courses and math sections of GRE and PCAT exams

2006 to Present **Volunteer**, *Zamaan International*, Dearborn, MI, USA.  
o Packaged and delivered food to clients  
o Organized fund raising efforts with local supermarkets

June 2013 **Volunteer**, *Beaumont (Previously Oakwood Hospital)*, Dearborn, MI, USA.  
Clerical work and support in pathology department

Sept. 2011 to **Tutor**, *WISE Academy*, Dearborn, MI, USA.  
May 2013 After-school volunteer tutor for students K–12<sup>th</sup> grade

## Languages

- **English**: Native Language
- **French**: Full working proficiency
- **Arabic**: Fluent