DORUK KILITCIOGLU

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EDUCATION

New York University, Courant Institute of Mathematical Sciences, NY, US **May 2019**
MSc. Computer Science, **GPA: 4.00**

Bogazici University, Turkey **Jan 2017**
B.Sc. Computer Engineering, Minor: Economics, GPA: 3.47 (7^{th} in class)
Government Scholarship, Dean's Honor List, Student TA

University of Queensland, Australia **Nov 2014**
Exchange Student, GPA: 3.71

TECHNICAL SKILLS

ML Domains: Recommender Systems, Natural Language Processing, Bioinformatics, Finance

Statistical Analysis: Bayesian Stats, Time Series, Monte Carlo Estimation, Hypothesis Testing, Visualization

Machine Learning: Deep Learning, Topic Models, Clustering, Regularization

Languages: Python, Java, R, C++, CUDA, MATLAB, Javascript, Scheme, Prolog, Perl

Libraries: Tensorflow, Scikit-learn, Numpy, Pandas, Matplotlib, NLTK, Lucene, Hadoop, Spring

Databases: SQL, Oracle *(PLSQL)*, MongoDB

WORK EXPERIENCE

Machine Learning Engineer Intern, **Hifi,** NY, US **Jul 2018 – Present**
- Research and implement *(Numpy, Tensorflow)* state of the art algorithms for music recommendation.
- Improved playlist build times by 35% by integrating and testing better nearest neighbor algorithms.

Student Developer, **NYU IT,** NY, US **Oct 2017 – May 2018**
- Applied Machine Learning methods *(scikit-learn, Tensorflow)* to improve the handling of work orders.
- Started out writing *(C#, .NET)* web API for NYU web services.

Software Dev. Intern, **Huawei Technologies,** Turkey **Jun 2015 – Jul 2015**
- Helped develop a Twitter spam detector for telecommunication related tweets, using 1mil+ tweets by 400k+ users.
- Tested to be 90% accurate on a larger database. Heavy use of Apache Lucene library *(Java)* & common NLP features.

RESEARCH PROJECTS

Books2Rec: Hybrid Book Recommendation System **Jan 2018 – May 2018**
- Built *(in Python)* a hybrid Recommender System, using Goodreads book ratings and book features
- Used SVD and Autoencoders to achieve a RMSE (Root Mean Squared Error) of 0.843
- Available live at books2rec.me

Relation Extraction using Deep Learning **Sep 2017 – Dec 2017**
- Read & implemented *(using Tensorflow)* methods for entity relation extraction from multiple research papers
- Interfaced with a larger NLP pipeline built by a team of 6 people
- Achieved 49% F1-score using CNNs and 51% F1-score using Bi-LSTMs on ACE 2004 dataset

Financial Analysis using Machine Learning Methods **Jan 2016 – Jan 2017**
- Conducted *(in Python)* machine learning based analysis on various stock prices & estimated future prices
- Collected and annotated relevant articles on stocks
- Obtained 54% accuracy (over baseline 50%) with a Hidden Markov Model variant with sentiment analysis

Monte Carlo Algorithm for Cold Start Recommendation **Jan 2016 – Jun 2016**
- Implemented *(in Python)* a research paper on collaborative filtering based Monte Carlo Algorithm for cold-start recommendation
- Decreased MAE (Mean Absolute Error) by 1.8% by using better transition priors and verified results using MovieLens database