Abdul Saleh

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Education

HARVARD UNIVERSITY Cambridge, MA
A.B. in Statistics and Computer Science. GPA 3.9 May 2020
Awards: Derek Bok Distinction in Teaching Award 2017
Relevant Coursework: Machine Learning, Statistical Inference, Linear Models, Probability Theory, Applied Linear Algebra.

Experience

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA
Undergraduate Researcher, Spoken Language Systems Group June 2018 – Present

- Researched novel neural methods for transfer learning and representation learning.
- Proposed a document embedding method that uses summarization as a pre-training objective.
- Outperformed state of the art embeddings on downstream natural language processing tasks.
- Developed neural models in TensorFlow to detect political bias in news articles.
- Co-authored two papers for submission to NAACL 2019 and SemEval 2019.

FREEWHEEL - COMCAST New York City, NY
Intern January 2018

- Implemented a recurrent neural network for time series forecasting using Keras to predict number of views a television advertisement will receive.

HARVARD UNIVERSITY Cambridge, MA
Course Assistant September – December 2017

- Taught introductory linear algebra during weekly problem sessions.
- Received an average student evaluation score of 4.8/5.

Technical Skills

- **Experience with:** Python (scikit-learn, TensorFlow, Keras, H2O)
- **Familiar with:** SQL, R, OCaml

Projects

Smooth Coefficients Logistic Regression November 2018

- Explored smoothing splines for regularization to stabilize the coefficients of logistic regression models trained on a simple speech recognition task. Code and writeup available here.
- Outperformed strong unregularized logistic regression, SVM, and Random Forest baselines.

Leadership & Activities

HARVARD SUMMIT FOR YOUNG LEADERS IN CHINA Shanghai, China
Seminar Leader August 2018

- Taught a one-week introductory machine learning seminar to 35 top high school students.
- Topics covered included model capacity and regularization, feature engineering, and maximum likelihood estimation.

HARVARD COMPUTER SOCIETY Cambridge, MA
Datamatch, Statistics Team November 2017 – Present

- Clustered word embeddings to create a bubble chart exploring the semantics of profile descriptions submitted to Datamatch, a matchmaking service used by over 10,000 students every year.
- Developing an interactive tool to assist users with writing their profile descriptions. This tool will predict how likely a user will get matched with based on their profile description.