Parastoo Falakaflaki

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Education

- **Queen Mary University of London** — London, UK
  MSc in Big Data Science — *2021 - 2022*
- **Shahid Beheshti University** — Tehran, Iran
  BSc in Computer Engineering ; GPA: 3.89/4.00 (17.98/20) — *2017 - 2021*

Experience

- **Machine Learning Engineer** — Rahnema College
  Internship — *April 2021 - June 2021*

  Completing Machine Learning Engineer course and Implementing a web crawler detection system. The aim of the project was to recognize the web requests given to Sanjagh Website, are crawlers or not. Finally, for taking advantage of this work, we had to create and develop a web application for production phase. As the company's dataset consisting its website's logs, was unlabeled, we trained unsupervised models on the dataset. As baseline we chose Isolation Forest and Local outlier factor, and as the main model we implemented an Auto encoder model.

- **NLP Researcher** — NLP lab, Shahid Beheshti University
  Under supervision of Professor Mehrnoush Shamsfard — *August 2020 - August 2021*

  Implemented a system for formality style transfer in Persian text. I implemented 4 different models and compared their performances. A Seq2Seq model, a Bert2Bert model using Pars-BERT, a back-translation based model using MT5 (a multilingual variant of T5 transformer) and a rule-based model. Eventually the implemented Bert2Bert model outperformed all the other models as well as hazm's the informal-to-formal converter.

Skills Summary

- **Languages**: Python, PHP, C++, JavaScript, SQL, Bash, JAVA
- **Frameworks**: Pandas, Matplotlib, Seaborn, Scikit-Learn, spaCy, NLTK, Numpy, Pytorch, Keras, Tensorflow, NodeJS
- **Tools**: Kubernetes, Docker, GIT, PostgreSQL, MySQL, SQLite

Projects

- **Fake Comment Detection** — Rahnema College Entrance Project, *Spring 2021*

  Detecting fake comments from real ones using data preprocessing techniques and different models

- **Formality style transfer in Persian text** — Research project
  Under Supervision of Professor Mehrnoush Shamsfard — *Spring 2021*
  Transferring text with colloquial language to formal language using a Bert2Bert model

- **Seq2Seq Generative Conversational Bot** — SBU's NLP lab August 2020

  Implemented generative chatbot using keras with seq2seq model, Golve50d embedding and attention mechanism

- **Products' Category Classification based on Products' titles** — Self-Project, Fall 2021

  Implemented a Bert classification and XGBoost model, using an Amazon dataset, predicting products' categories based on their title.

- **Predicting market share for local TV channels** — Shahid Beheshti University
  Under supervision of Professor Hamed Malek — *January 2020*
  Predicting market share for Montreal TV channels' data using scikit-learn, Pandas, Matplotlib and Seaborn

- **Live Chat Website** — Shahid Beheshti University, *Winter 2020*

  Implemented a website for a data gathering contest using NodeJS(ExpressJS), MongoDB and Apollo Server(GraphQL) for Backend project and ReactJS and Apollo Client for Frontend project. The main aim of this website was to gather chat data for training a chat model. In this website people could register and chat with other users and get points. At last 5000 pair of Persian chat messages were gathered.

Honors and Awards

- Ranked 8th in "ACM-ICPC (International Collegiate Programming Contest) Regional Tehran 2019"

Courses

- **Ethereum and Solidity: The Complete Developer's Guide** — Udemy
- **Deep Learning Specialization (5 courses)** — deeplearning.ai, coursera