**ALI SHIBLI**

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11 428 https://github.com/alishibli97/

**Education**

**Master’s: KTH Royal Institute of Technology, Sweden (2020-2022)**

Machine Learning (with research in: natural language processing, computer vision, and deep network interpretability)

**Bachelor’s: American University of Beirut, Lebanon (2015-2020)**

Double Major in Computer and Communications Engineering and Pure Mathematics (Artificial Intelligence track)

**Professional Experience**

**Master thesis student: Ericsson – Sweden (February 2022-June 2022)**

**Machine Learning Mentor: PECA (Professional Education Content Alliance) Project – Sweden (January 2022)**

* Mentored AI, machine learning, and deep learning for over 30 engineers from different companies who were not introduced to AI before
* Prepared personal presentations and python notebooks that cover a wide range of topics in introductory AI

**Teaching Assistant: EECS department at KTH – Sweden (August 2021-December 2021)**

* **DD2380 Artificial Intelligence course**: gave tutorials and lab sessions on topics of Hidden Markov Models, Reinforcement Learning, and Search in Games.

**R&D Machine Learning Engineer: Ericsson HQ– Sweden (June 2021 - August 2021)**

* Developed a Question-Answering chatbot system (QA) for Ericsson based on a BERT model and trained on telecommunications data.
* Contributed to developing the internal dataset for Ericsson by labeling question-answering pairs from the text dataset (over 1000 QAs).
* Developed the Ericsson dataset even further by scraping new data from the FAQ platform (around 10,000 QAs).

**Research Engineer in Machine Learning: RPL Lab at KTH – Sweden (October 2020 - April 2021)**

* Developed model for predicting visual relationships from images, using graph neural network, that achieved state-of-art results in recall and precision.
* Scraped and collected a dataset of 50,000+ images that can be used for visual relationship detection task.
* Developed an open source framework for scraping images with captions from Google, Yahoo, Flickr, and other search engines ***(***[***image\_caption\_scraper***](https://github.com/alishibli97/image-caption-scraper)***)***

**Quality Service and Network Management Engineer: Touch – Lebanon (June 2019 - August 2019)**

* Maintained the mobile network over Lebanon by analyzing data received from the network sites.
* Reported fault reports upon capturing interference patterns and jammers in the network.
* Maintained the hardware of the sites.

**Projects Accomplished**

* Tree-D: autonomous drone that navigates around trees detecting parasites with an accuracy of 85% in real time and shooting them. The model was Yolov3, and transfer learning on 5000 images was applied were all layers of the network were fine-tuned.
* Detect-Me: visual relationship detection model based on graph neural networks to detect relationship triplets *(subject, predicate, object)* in images, in a weakly supervised manner. The dataset was manually collected, to up to 10,000 images with noisy labels, and the model achieved SOT results.
* Tele-Bot: BERT-based question-answering chatbot for the telecommunications field (*at Ericsson*).
* Agricultural-UNet: segmentation model based on UNet model for very noisy agricultural satellite images to detect damages in fields crops. The model which was initially trained for medical imaging, and then fine-tuned to agricultural imaging which multi-label segmentation.
* Spotify Music Recommendation: song recommendation distributed model based on Spotify music meta-data and feature correspondence.
* Lebanese Sports Pitches (LSP app): mobile app to connect sports pitches in Lebanon allowing online booking and reservation.

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| **Achievements & Publications**   * *image-caption-scraper* package 2021 ***(***[***image\_caption\_scraper***](https://github.com/alishibli97/image-caption-scraper)***)*** * Hattrick Award in AI course at KTH 2020 * First place on AUB startup competition 2019 ([*award*](https://drive.google.com/file/d/1M5XOfOgcnhmhDc6Re7zez-poAqhWCyk8/view?usp=sharing)) * Second place on Darwazah Lebanese competition 2019 ([*award*](https://drive.google.com/file/d/1M5XOfOgcnhmhDc6Re7zez-poAqhWCyk8/view?usp=sharing)) * Semi-finalist on BeryTech Beirut competition 2019 | **Summary Skills**   * Computer vision, natural language processing, data analysis * Databases, cloud computing, software development, distributed computing (spark mainly) * PyTorch, Tensorflow, Keras * Linux, Windows * Main programming languages: Python, Java, C++ |
| **Extra-Curricular Activities**   * Sports, football, basketball, working out * Movies and series | **Languages**   * English C2 * Arabic C2 |