# **Abdallah Bashir**

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#### **EDUCATION**

#### Saarland University, MSc, Computer Science

- Expected Grad Year 2021, GPA: 2.1

# University of Khartoum, BSc, Electrical and Electronics Engineering, Software Engineering.

- graduated Sep 2018, CGPA: 7.51 | 10, Honors: First Class honor degree.

#### **EXPERIENCE**

# MAX-PLANCK-INSTITUT FÜR INFORMATIK | RESEARCH ASSISTANT

11/2019 – Now Saarbrucken,

- Applied NLP state of the art techniques on medical domains.
- Achievements Implemented models to fine-tune language Models like BERT and Roberta on Named entity recognition and text classification tasks with +90% accuracy.
- Implemented API to parse and preprocess JSON text data for modeling.
- Built web scraper to scrape medical scientific abstracts.

## DIALOG SYSTEMS AND MACHINE LEARNING GROUP - HHU | INTERN

8/2019 -9/2019, Dusseldorf, DE

- Ported Pydial 2.0 to Pydial 3.0 (an open-source statistical dialogue systems tool).
- Achievements Wrote and reviewed code for Experiments, unit tests, and evaluation of the porting process. ported the library with 0% errors.

#### **DFKI | RESEARCH ASSISTANT**

5/2019 – 7/2019 Saarbrucken, DE

- Built an API to preprocess text data and get it in shape for modeling.
- Achievements trained Classifier by fine-tuning BERT to classify post machine translation errors.

# EchoNine, IT Solutions Startup | CO-FOUNDER & SOFTWARE ENGINEER

9/2015 – 10/2016 Khartoum, SD

- Gathered and defined customer requirements to develop clear specifications for creating well-organized project plans.
- Designed, built, and monitored web/mobile applications and sites for continuous improvement.
- Achievements building a product in cooperation with Zain Sudan, the top telecommunication company in the country.

#### **PUBLICATIONS**

• Venues: **ACLing'18, NeurIPS'18 Black in Al workshop** [1] A. M. Bashir, A. Hassan, B. Rosman, D. Duma, and M. Ahmed. Implementation of

A Neural Natural Language Understanding Component for Arabic Dialogue Systems. Procedia Computer Science, 142:222–229, Jan. 2018

Venues: ICLR'20, AfricaNLP workshop
[2] I. Orife et al., "Masakhane -- Machine Translation For Africa," arXiv:2003.11529 [cs], Mar. 2020, Accessed: Mar. 29, 2020. [Online]. Available: <a href="http://arxiv.org/abs/2003.11529">http://arxiv.org/abs/2003.11529</a>.

## **PROJECTS**

**MUSIC SYNTHESIZER FEB 2020 - now:** training language models like Transformer XL on classic and Pop music data to generate music.

**MASAKHANE Sep 2019 – Feb 2020[2]:** An ongoing open-source Research that focuses on implementing machine translation models from English to multiple African languages, with publicly available code and data. I gathered parallel Arabic-English corpus and trained a translation model for MSA with 15.45 BLUE Score.

**NLU FOR ARABIC DIALOGUE SYSTEMS Nov 2017 - Aug 2019:** BSc Thesis & Paper in <u>ACLing 2018</u> [1]. Collaborated to implement a Natural Language Understanding module for Arabic Home Automation Dialogue System. Used CNN and LSTM for Dialogue act classification and Bilstm for named entity recognition.

Offensive Language Detection on Twitter Aug 2019: trained a classifier to classify tweets that contain offensive language Using Naive Bayes and Support Vector Machine with 79% Accuracy. Translation Error Classification, DFKI Project

Using a feature-based approach Bert to classify neural machine translation results errors, I used Pytorch huggingface to model the data.

**Simplified C Compiler" SCC" April 2017 ' C**: Collaborated to build a C compiler that compiles C in Assembly language. at the end we were able to compile Control structures: if/if...else/switch case, Loops, Pointers, Function Calls, Arithmetic Operations, Logical Operations, and Variables: Local and global.

#### SKILLS

Machine Learning - Natural Language Processing - Dialogue Systems - Software Engineering - Python - R - Swift - Assembly - Scikit-learn - Tensorflow and Keras - Pytorch - Linux

#### **AWARDS & ACCOMPLISHMENTS**

- 2018 Awarded Outstanding Paper Award at ACLing 2018 for presenting [1]
- 2018 Awarded Deep Learning Indaba Poster Award [link]
- 2018 Awarded Scientific Innovation Award for BSc Thesis
- 2018 Organized IndabaX Sudan 2018 | made a talk about Intro to Neural Networks.[link]
- 2016 Organized and led TEDxYouth@NileStreet Sudan.