

Abdallah Bashir

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EDUCATION

Saarland University <i>Master of Science in Computer Science</i>	Saarbrücken, DE <i>Apr 2019 – Apr 2022</i>
University Of Khartoum <i>Bachelor of Science in Electrical And Electronics Engineering, Minor in Software Engineering</i>	Khartoum, SD <i>Sep 2013 – Sep 2018</i>

EXPERIENCE

Incoming Research Intern <i>Allen AI</i>	Jan 2022 – Mar 2022 <i>Seattle, USA</i>
Applied Scientist Intern <i>Goldman Sachs</i> <ul style="list-style-type: none">• Curate, parse, preprocess data related to git projects in the organization.• Implementing Deep learning models with Attention to identify high risk changes in Git Software products.• Achievements - Implemented a Machine Learning based tool to help code reviewers to detect high risk changes in software products	Apr 2021 – Aug 2021 <i>Frankfurt, DE</i>
Research Assistant <i>Max Planck Institute For Informatics</i> <ul style="list-style-type: none">• Conducting research on integrating common sense in neural language models.<ul style="list-style-type: none">* Implementing novel methods to integrate common sense knowledge to language models.* Implemented an API to parse and preprocess JSON text data for modeling.* Built web scraper to scrape medical scientific abstracts.* Applied NLP state-of-the-art techniques (tokenizers, models, transfer learning) 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.	Nov 2019 – Mar 2021 <i>Saarbrücken, DE</i>
Intern <i>Dialog Systems And Machine Learning Group - Heinrich-Heine University</i> <ul style="list-style-type: none">• 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.	Aug 2019 – Oct 2019 <i>Düsseldorf, DE</i>
Research Assistant <i>German Institute for Artificial Intelligence - DFKI</i> <ul style="list-style-type: none">• Built an API to preprocess text data and transform it into the right data format for modeling.• Achievements - trained a classifier by fine-tuning BERT to classify post machine translation errors with 93.2% accuracy.”	May 2019 – Jul 2019 <i>Saarbrücken, DE</i>
Software Engineer, Co-Founder <i>EchoNine IT Solutions Startup</i> <ul style="list-style-type: none">• Gathered and defined customer requirements to develop clear specifications for creating well-organized project plans.• Designed, built, and monitored web and mobile applications for continuous improvement• Achievements - building a product in cooperation with Zain Sudan, the top telecommunication company in the country.	Sep 2015 – Oct 2016 <i>Khartoum, SD</i>

PROJECTS

Healthy Diet for COVID-19 <i>Machine Learning, Python,R, Git, Data Visualization</i> <ul style="list-style-type: none">* Using Machine Learning, the project aims to analyze the food consumption from countries all over the world to see whether there's a relationship between given country food habits and their recovery rate.* Preprocessed the data into shape for modeling.* Implemented three machine learning models and benchmarked the results to report the best one.* Built figures using visualization tools to explain the assumptions we made about the data.* Managed a team of four to deliver the final project.	April 2020 – Jul 2020
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Music Synthesizer | *Python, Pytorch, Language Models, Streamlit, Git* Jan 2020 – May 2020

- * Using Deep Learning, we try to generate pop and classic music by converting music notes to text and train neural language models
- * Built an API to convert music MIDI files into tokenized text
- * Implemented Deep Learning models to be trained on the music notes text
- * Evaluated the generated music by getting insights from experts and using music theory tests.
- * Helped in implementing a demo for the project using Streamlit

WhatsApp Chatbot | *Python, Flask, Deep Learning, Transformers, Git* Mar 2020 – Apr 2020

- * Designed and Built an API to integrate a pre-trained model as a chatbot integrated in Whatsapp
 - The API links Twilio API for Whatsapp together with Flask web application framework to handle sending and receiving messages to WhatsApp.
 - The flask web app is designed to link Huggingface implementation of DialoGPT "large-scale pretrained dialogue response generation model for multiturn conversations." with the Twilio API

Twitter Offensive Language Detection | *Python, Machine Learning, Git* Jul 2019 – Sep 2019

- * The project aims to detect offensive tweets in Twitter using Machine Learning algorithms.
- * trained a classifier to classify tweets that contain offensive language Using Naive Bayes and Support Vector Machine with 79% Accuracy.

Simplified C Compiler" SCC" | *C, Assembly, Python, Compilers, Git* Apr 2017 – Jun 2017

- * Collaborated to build a C compiler that compiles C in Assembly language.
- * Built an API to compile Function Calls, Arithmetic Operations, Logical Operations, and Variables: Local and global.

PUBLICATIONS

Venues | *Findings of EMNLP 2020* Sep 2020

- * W. Nekoto et al., "Participatory Research for Low-resourced Machine Translation: A Case Study in African Languages," arXiv:2010.02353 [cs], Oct. 2020, Accessed: Oct. 15, 2020. [Online]. Available: <http://arxiv.org/abs/2010.02353>.

Venues | *ICLR'20 AfricaNLP workshop* Mar 2020

- * 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 | *ACLing'18, NeurIPS'18 Black in AI workshop* Nov 2018

- * I. Orife et al., "Masakhane – Machine Translation For Africa," arXiv:2003.11529 [cs], Mar. 2020, Accessed: Mar. 29, 2020. [Online]. Available: <http://arxiv.org/abs/2003.11529>.

AWARDS AND ACCOMPLISHMENTS

- * **Wikimedia** *Co-winner of the Research Award of the Year* | Apr 2021
- * **ACLing** *Awarded Outstanding Paper Award* | Nov 2018
- * **University of Khartoum** *Awarded Scientific Innovation Award for BSc Thesis.* | Oct 2018
- * **Deep Learning Indaba** *Awarded Poster Award.* | Sep 2018
- * **TEDx** *Organized and led the team of TEDxYouth@NileStreet that was reported by the press to be the most engaging event of the year* | Oct 2016

SKILLS

Machine Learning, Deep Learning, Natural Language Processing, Dialogue Systems, Machine Translation, Natural Language Understanding, Python, R, Swift, C/C++, SQL, Assembly, HTML/CSS, Java, Pytorch, Tensorflow and Keras, Django, Bootstrap, jQuery, Wordpress, Docker, Unity3D, Linux, Git, Flask, FastAI, Pandas, Numpy, matplotlib