# Saadullah Amin

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#### **EDUCATION**

Saarland University, Saarbrücken, Germany

April 2019 - Present

Ph.D. Candidate

Department of Computational Linguistics

Advised by Prof. Dr. Günter Neumann

NUST, Islamabad, Pakistan

September 2011 - June 2015

Bachelor of Science, Electrical Engineering

School of Electrical Engineering and Computer Science

#### RESEARCH INTERESTS

Machine Learning, Information Extraction, Deep Learning

### WORK EXPERIENCE

Junior Researcher, DFKI, Saarbrücken, DE

Apr 2019 - Present

- · Working on EU and BMBF funded projects Precise4Q, DEEPLEE and CoRA4NLP.
- · Member of Question Answering and Information Extraction group lead by Prof. Günter Neumann.
- · Co-supervising Master theses and assisting in lectures at Saarland University.

#### Machine Learning Engineer, EDT Software, Remote

Aug 2017 - Mar 2019

- Research and development of natural language processing and machine learning algorithms for electronic discovery (e-discovery).
- Applications Developed: Persons of Interest (POI) Detection, Emails Footer and Signature Detection, Emails Discombobulation, Email Threads Reconstruction, Language Identification, Documents Similarity Analysis, Concepts Clustering, Intelligent Keywords, Active Learning for Predictive Coding and NSFW Images Recognition.
- Member of EDT AI Lab.

# Freelance Machine Learning Engineer, Fiverr, Remote

Feb 2016 - Dec 2017

- Worked on projects in the areas of machine learning, natural language processing and computer vision.
- Developed solutions for startups, SMEs and R&D institutes.
- · More than 50 projects delivered with perfect ratings of 5.0 (https://www.fiverr.com/perfectionin5).

## Technology Lead, Sellomni, Remote

Jun 2016 - Oct 2016

- Built core-analytics engine for Tribe service a large-scale social network of products communities.
- Developed language and vision models with products latent and manifest features to automatically generate, expand and monitor customers.
- Developed prototype website and set up the cloud infrastructure for initial round of funding and lead a team of three engineers.

## Intern, SeeAlgo, Remote

Feb 2016 - May 2016

• Worked on design and development of NLP algorithms for SeeAlgo's web based service Doculyzer, where the goal was rapid analysis and understanding of text documents using then state-of-the-art representations: word2vec and doc2vec.

• Researched seizure detection algorithms and devised a novel framework utilizing RUSBoost to build patient specific seizure detection classifier based on temporal, spatial and spectral features extracted from scalp EEG of pediatric patients with CHB-MIT dataset.

#### **PUBLICATIONS**

Amin, S., & Neumann, G. (2021). T2NER: Transformers based Transfer Learning Framework for Named Entity Recognition. In *Proceedings of the 16th Conference of the European Chapter of the Association for Computational Linquistics: System Demonstrations* (pp. 212–220). ACL.

Amin, S., Varanasi, S., Dunfield, K. A., & Neumann, G. (2020). LowFER: Low-rank Bilinear Pooling for Link Prediction. In *International Conference on Machine Learning* (pp. 257-268). PMLR.

Amin, S., Dunfield, K. A., Vechkaeva, A., & Neumann, G. (2020). A Data-driven Approach for Noise Reduction in Distantly Supervised Biomedical Relation Extraction. In *Proceedings of the 19th SIGBioMed Workshop on Biomedical Language Processing* (pp. 187-194). ACL.

Varanasi, S., **Amin, S.**, & Neumann, G. (2020). CopyBERT: A Unified Approach to Question Generation with Self-Attention. In *Proceedings of the 2nd Workshop on Natural Language Processing for Conversational AI* (pp. 25-31). ACL.

Amin, S., Neumann, G., Dunfield, K., Vechkaeva, A., Chapman, K. A., & Wixted, M. K. (2019). MLT-DFKI at CLEF eHealth 2019: Multi-label Classification of ICD-10 Codes with BERT. In *CLEF* (Working Notes).

Choudhry, A. J., Badshah, A., & **Amin, S.** (2017). Real-time flight altitude estimation using phase correlation with Gram polynomial decimation. In *Thirteenth International Conference on Quality Control by Artificial Vision 2017* (Vol. 10338, p. 103381A). International Society for Optics and Photonics.

Amin, S., & Kamboh, A. M. (2016). A robust approach towards epileptic seizure detection. In 2016 IEEE 26th International Workshop on Machine Learning for Signal Processing (MLSP) (pp. 1-6). IEEE.

## TECHNICAL SKILLS

**Python** Proficient

C++, R, C#, HTML Working Proficiency

Tools/OS PyTorch, HuggingFace Transformers, TensorFlow, scikit-learn, NumPy,

NLTK, LATEX, Unix, Windows

## **SERVICES**

Program Committee member / Reviewer EMNLP 2021
Volunteer EACL 2021

### REFERENCES

- Prof. Dr. Günter Neumann, Research Fellow and Principal Researcher, DFKI guenter.neumann(at)dfki.de
- · Prof. Dr. Josef van Genabith, Head of Multilinguality and Language Technology Lab, DFKI josef.van\_genabith(at)dfki.de