



Arif Khan

Computer skills

Programming Languages

- **Python, Java, MATLAB, C**

Speech Recognition Toolkits

- **Kaldi, HTK, Sphinx**

Machine Learning Toolkits

- **Keras, Torch**

Build Automation

- **Gradle, Maven**

Version Control

- **Git, Subversion, Perforce**

Scripting Languages

- **Bash, Groovy, Perl**

Documentation

- **JSON, XML, LaTeX**

IDE's

- **IntelliJ, Eclipse, RStudio**

Platforms

- **macOS, Linux, Windows**

Other

- **Knowledge of agile methodology and Scrum**
- **Able to work in team and independently**

Education

- Jun 14 – To date **Ph.D Computer Science**, *Saarland University*, Saarbücken, Germany.
Supervisor Dr. Ingmar Steiner
- Apr 10 – Dec 13 **M.Sc Computer Science**, *Saarland University*, Saarbücken, Germany.
Supervisor Prof. Dietrich Klakow
- Jan 03 – Dec 06 **B.Sc (Hons) Computer Science**, *Islamia College University*, Peshawar, Pakistan.
Supervisor Dr. Imran Mughal

Job experience

- Jun 14 – To date **Researcher**, *DFKI, Language Technology Lab*, Saarbücken, Germany.
- Multimodal speech segmentation
 - Human segmentation behaviour analysis
 - Automatic speech recognition
 - Acoustic modeling for speech recognition
 - Feature fusion to combine different modalities
- Sep 12 – Dec 12 **Internship**, *SAP AG*, Sankt Leon-Rot, Germany.
- On Demand Solutions
 - Develop and enhance prototype for better software problems reporting
 - Embedded support for customers
- Mar 11 – Aug 11 **Research Assistant**, *M2CI*, Saarbücken, Germany.
- Java programming
 - Assist in research work (WisNetGrid project)
 - Information extraction and ontology engineering

Languages

Pashto

► Native

English

► C1

German

► B1

Urdu

► C2

Teaching experience (Tutor)

- Apr 13 – Aug 13 ***Statistical Natural Language Processing***, Saarland University.
- Conduct tutorial sessions
 - Make exercise sheets
 - Correct solutions and discuss problems
- Oct 10 – Feb 11 ***Software Engineering***, Saarland University.
- Supervise student projects
 - Conduct tutorials for the software engineering lecture
- Apr 15 – Aug 15 ***Spoken Dialog Systems for Elevator Control***, Saarland University.
- Assist student groups for the project
 - Train acoustic model for the elevator

Publications

Arif Khan and Ingmar Steiner. Fusing gaze data and spectrogram image features for automatic phonetic segmentation. In *30th Conference on Electronic Speech Signal Processing (ESSV)*, Dresden, Germany, March 2019. accepted.

Arif Khan, Ingmar Steiner, Yusuke Sugano, Andreas Bulling, and Ross Macdonald. A multimodal corpus of expert gaze and behavior during phonetic segmentation tasks. In *11th Language Resources and Evaluation Conference (LREC)*, pages 4277–4281, Miyazaki, Japan, May 2018.

Arif Khan and Ingmar Steiner. Qualitative evaluation and error analysis of phonetic segmentation. In *28th Conference on Electronic Speech Signal Processing (ESSV)*, pages 138–144, Saarbrücken, Germany, March 2017.

Arif Khan, Ingmar Steiner, Ross Macdonald, Yusuke Sugano, and Andreas Bulling. Scene viewing and gaze analysis during phonetic segmentation tasks. In *18th European Conference on Eye Movements (ECEM)*, Vienna, Austria, August 2015.

Oliver Ohneiser, Hartmut Helmke, Heiko Ehr, Hejar Gürlük, Michael Hoessl, Thorsten Mühlhausen, Youssef Oualil, Marc Schulder, Anna Schmidt, Arif Khan, and Dietrich Klakow. Air traffic controller support by speech recognition. In *5th International Conference on Applied Human Factors and Ergonomics (AHFE)*, At Kraków, Poland, 07 2014.

Anna Schmidt, Youssef Oualil, Oliver Ohneiser, Matthias Kleinert, Marc Schulder, Arif Khan, Hartmut Helmke, and Dietrich Klakow. Context-based recognition network adaptation for improving on-line ASR in air traffic control. In *Spoken Language Technology Workshop (SLT)*, pages 13–18. IEEE, 2014.

Arif Khan. Automatic Speech Recognition techniques to improve Air Traffic Control management. Master thesis, LSV, Saarland University, 2014.