# ABDUL REHMAN

Looking for an AI/NLP related internship or part-time work.



#### **EDUCATION**

## PhD | Bournemouth University, UK, SEP 2021 – 2025

Research topics: NLP, Intelligent personal assistant, Intuitive chatbots, Affective computing,

## Masters in Control Science and Engineering | CUG, Wuhan, China, SEP 2018 – JUN 2021

Thesis: Speaker Independent Speech Emotion Recognition with Active Learning

- 2nd prize in CUG's postgraduate research awards, 2020
- Bronze prize in China's 5<sup>th</sup> Internet+ Innovation and Entrepreneurship Competition, 2019

#### MBA - Marketing Research | Bahria University, Islamabad, Pakistan, FEB 2015 - MAR 2017

Thesis: Effective ways to sell costly but environmentally friendly products

#### BS in Electrical Engineering | PIEAS, Islamabad, Pakistan, OCT 2010 – JAN 2015

Thesis: RF RSSI based outdoor localization



## **WORK EXPERIENCE**

## Design Engineer | Comcept (Pvt) Limited, Islamabad, Pakistan

Sep 2015 – Aug 2017 | R&D, design and development of hardware and software for military equipment.

#### Technical Lead | QRS Personalization Factory, Wuhan, China

Jun 2019 – Sep 2020 | An IoT/HCI startup for business personalization on fingertips without the need to code.

## Research Assistant | AHRC Funded Project

Feb 2022 – | Coordinating and interviewing key people in the Virtual Production industry for the UK-China Collab.



#### **PUBLICATIONS**

Speech Emotion Recognition Based on Formant Characteristics Feature Extraction and Phoneme Type Convergence

#### | Journal: Information Sciences

2021, Zhen-Tao Liu; Abdul Rehman; Min Wu; Weihua Cao; Man Hao

Speech Personality Recognition Based on Annotation Classification Using Log-likelihood Distance and Extraction of Essential Audio Features

#### Journal: IEEE Transactions on Multimedia

2020, Zhen-Tao Liu; Abdul Rehman; Min Wu; Weihua Cao; Man Hao

Syllable Level Speech Emotion Recognition Based on Formant Attention

## | Conference: CIC AI 2021

2021, Abdul Rehman; Zhen-Tao Liu; Jing-Meng Xu

Cross-Corpus Speech Emotion Recognition Based on Hybrid Neural Networks

#### | Conference: CCC 2020

2020, Abdul Rehman; Zhen-Tao Liu; Dan-Yun Li; Bao-Han Wu

Google Scholar profile: <a href="https://scholar.google.com/citations?user=vz\_gp6UAAAAJ&hl">https://scholar.google.com/citations?user=vz\_gp6UAAAAJ&hl</a>

1 Rehman's CV



- **Programming:** Python, JS, C++, C#, in that order
- **ML**: Optimization, Numerical methods, Knowledge based systems.
- **EE:** Signals, RF, Sensors, IoT, microcontrollers and DSP based prototype design and code.
- Tools:
  - o TF, Keras, PyTorch, Matlab
  - o Altium, LT-Spice, Proteus, Arduino
- Languages:
  - o English, Urdu, Chinese



## **PROJECTS**

These are few projects that I have worked on independently or at the job:

## Intelligent AI based Personal Assistant

SEP 2021 -

Research project. Currently, working on creating a cancer clinic helpdesk bot with small-sample due to the lack of clinical data.

#### Speech affects recognition in small-sample environment

SEP 2018 – JULY 2021

Research project. Link: tabahi.github.io/WebSpeechAnalyzer/

#### Road snow melting IoT system

MAY 2017 - JULY 2017

IoT electronics and Web based control panel for Arctic highways in Norway. Simple project but a lot of moving parts in it. Link: met.tabahi.tech

#### AI based forecast from CO2 sensors and Satellite data

APRIL 2017 - MAY 2017

Programming of weak-AI based prediction of crop yield. Application monitors and triggers the alarm when CO2 is increasing rapidly in cities or agricultural areas to predict a forthcoming drought.

#### Autoloader control system

MARCH 2017 - AUG 2017

I designed the whole control mechanism of a loading robot that replaces one of the crew members inside the tank.

#### • Fire (projectile) control system

JULY 2016 - JULY 2017

I was part of a team which designed the whole firing system for a military tank. My task was to design instruments to sense the environment wind, fog, trees, gravity etc.

#### Laser based target locker

DEC 2015 - JULY 2016

Detection of target distance, material and surrounding environment using a high-power laser.

## Long range passive LF metal detector

JAN 2017 - SEP 2017

Detection of 10m deep underground metal tags using passive RF.

#### Remote fuel gauging system for air fuel tankers

JAN 2016 - MAY 2016

Remotely monitors the air fuel taker fleet. It is monitored by web-based user interface.

## NMEA0186, NMEA2k, Seatalk multiplexer and decoder with remote nodes

NOV 2015 - JAN 2016

A device to merge all kind of sea instruments in one box. It uses multiple controllers and remote RF nodes to show all the ship's instruments on a single screen.

Some of my hobby projects are publicly available on GitHub: github.com/tabahi.