# BIA CHAUDHRY

+92 334 444 6823 ⋄ Email ⋄ LinkedIn ⋄ GitHub ⋄ Portfolio ⋄ Website

Islamabad, Pakistan

## EDUCATION

**National University of Sciences and Technology** *2016-2020*
Bachelor of Engineering in Software Engineering
Overall GPA: 3.56/4.0

## EXPERIENCE

**Teradata GDC** June 2019 - July 2019
*Data Integration Intern* *Islamabad, Pakistan*

- Initial training under Data Integration department lead by Abdul Haseeb Ahmed ( Practice Manager - Data Integration at Teradata)
- Accomplished Teradata 14.0 fundamentals by 49% in 4 weeks of Teradata Factory
- Increased MySQL query optimization level by around 5% with Teradata Virtual Machine hands-on experience
- Analyzed Zomato Restaurant Data and found 91% of the dataset, as well as the outcomes, are inclined towards Asian cuisines
- Achieved 2 weeks of fundamentals of managed services tools such as Service Now, data stream architecture, locks, and backup
- Completed 4 assignments comprised of query optimization using statistics and space

**LearnObots** May 2019 - June 2019
*Software Quality Assurance Intern* *Islamabad,Pakistan*

- Worked on the Software Quality Assurance of RobotWala Application, the internship lead by Arslan Arshad (Lead Software Engineer at LearnObots)
- Conducted 95% of black-box and 75% of white-box testing for Robotwala web application
- Achieved 10% test case automation for Robotwala
- Created 80% of all the test cases using Selenium and 95% using manual bug reporting tools such as MS Excel and Asana
- Accomplished 3% of dummy data seeding using Django and PostgreSQL for testing purpose
- Documented around 95% of the test results and 98% of the bugs for future reference

## INTERESTS

- Data Science
- Data Analysis
- Data Engineering
- Machine Learning
- Artificial Intelligence

- Web Development
- Business
- Computer Vision
- Management
- Programming

## TECHNICAL SKILLS

| | |
|---|---|
| **Programming Languages** | Python, C++, Java, and Lua |
| **Machine Learning** | Numpy, Pandas, and sklearn |
| **ML Frameworks** | TensorFlow, Keras, Streamlit, and Django |
| **Data Mining** | Excel, Python |
| **Data Engineering** | Teradata, ETL, MySql, and Talend |
| **Data Modeling** | Star UML, and Lucid Chart |
| **Data Visualization** | Power Bi, Google Data Studio, MS Excel, and Matplotlib |
| **Data Analysis** | Descriptive Modeling, and Associative Modeling |
| **Data Science** | Probability & Statistics,and Predictive Modeling |
| **Natural Language Processing** | Neural Machine Translation, and NLTK |
| **Web Development** | Java Script, Jquery, PHP, HTML, CSS, and Bootstrap |
| **Software Tools** | Wirehark, Wordpress, Selenium, and LaTex |
| **Documentation** | Microsoft Powerpoint, MS Word, and MS Excel |
| **Visual Design** | Paint 3D, Adobe Photoshop, and Canva |

## SOFT SKILLS

- Creativity & Innovation
- Integrity & Accountability
- Teamwork
- Problem Solving
- Business Acumen
- Customer Centricity

- Communication
- Adaptability
- Curiosity
- Growth Mindset
- Eagerness to Learn and Apply

## TECHNICAL PROJECTS

**Roman Urdu to Urdu Transliteration Engine**　　　　　　Final Year Project (2019-2020)
*Industry Partner Accolade Consulting Excellence (ACE)*

**Tool Used:** NLP, NMT, Python, Keras, Pandas, Numpy, matplotlib, Bootstrap, Flask, AWS, colab and Jupyter Notebook

**Team:** Dr. Muhammad Ali Tahir (Advisor), Dr. Bilal A Khaliq (Industry Partner), Ameer Hamza (Colleague), Sadia Naseer (Colleague), Bia Chaudhry.

Developed a scalable, context-aware, and generic system (Model+Web API) for transliteration of roman Urdu to the Urdu language using the Seq2Seq model with the Attention mechanism. *Achieved: BLEU Score: 0.78/1.0,Test accuracy: 89%, Correct %age: 63.3 with FastText C2W (Character2Word) Embedding*

**An Interactive End-to-End Data Driven Web Application in Python**　　　　Data Science
***Tool Used:*** *Python, Streamlit, and Jupyter Notebook*

I worked on data-driven web applications. These applications provide an interactive view of data in the form of a dashboard. I found Streamlit (Python Framework) very useful in this regard. I built and deployed an interactive web application using Python and Streamlit. Link: Medium Article

**Productivity Analysis amid Pandemic Situation**　　　　Data Science - Data Analytics
***Tool Used:*** *Data Collection using Google Forms, Google Data Studio, and CSV file*

This study is meant to provide a brief overview of how the productivity of different sectors effected amid the current pandemic situation. The report and visualization charts are created using Google Data Studio. Google Data Studio helps to create and manage analytical reports easily and effectively. Link: Analytical Report

### Survey of Final Year Students to get insights                                        Data Analytics
***Tool Used:*** *Data Collection and visualization using Google Forms*

In this project I collected data from Final Year University students (mainly from my university NUST), when I was still in my final year. The survey aims at figuring out the sentiments of graduation class regarding several aspects of their university and other experiences. Link: Project Detail

### Similarity between Documents                                        Natural Language Processing
***Tool Used:*** *Python, NLTK, Pandas, Numpy, beautifulsoup4, sklearn, networkx, urllib, and Jupyter Notebook*

Using NLP techniques I found the similarity between several documents. The processes I used include: TF-IDF, Cosine-similarity, Soft-Cosine-Similarity, Fasttext Word Embeddings, Clustering : Dendograms, Visualization : Network Graph, Evaluation Metric : Accuracy Link: Source Code

### Reading Habit Analysis                                        Machine Learning - Data Analytics
***Tool Used:*** *Python, Pandas, Numpy, matplotlib, NLTK, sklearn, KMeans, AgglomerativeClustering, DecisionTreeClassifier, and Kaggle*

I collected and analysed the data for getting the answer to the question: "What Motivates you to read?". I applied Clustering  Decision Tree approach to generate results. Link1: Source Code Link2: Medium Article

### A Sunday Bazaar Web application                                        Web Engineering
***Tool Used:*** *MySql, PHP, HTML, CSS, and Bootstrap*

I along my Team developed a multilingual web application for customers and vendors to digitize the Sunday bazaar inventory items

### A Real Estate Web Portal                                        Database Systems - Software Engineering
***Tool Used:*** *MySql, PHP, HTML, CSS, Java Script, and Bootstrap*

I and my team developed an interactive web portal for property dealers so that both the dealers and the customer can use the portal to select and confirm the required property

## VOLUNTEERING ACTIVITIES

### Model School & Welfare Trust                                        2020
*Teaching Digital Skills to Kids*                                        *Rawalpindi, Pakistan*

· We a team of 9 members taught digital skills to school going kids and conducted problem solving and creativity activities for the target audience.

### Major League Hacking                                        2018
*Member of Organizing Committee*              *Microsoft & GitHub sponsored event, NUST, Islamabad*

· I was responsible for the registration and organization of the event at NUST-SEECS.

## ACHIEVEMENTS

### Data Explain-ability Challenge                                        2020
*Our team won 3rd rank*                                        *Technolvers, Pakistan*

Our team consisting of three members (Farhana Shafi, Rahat Ul Ain, Bia Chaudhry (Team Lead)), performed data analysis in four major steps:
· First, we implemented a time-series analysis to examine the region-wise trends of several factors
· Then, we compared all the regions considering parameter ratios
· Third, we drew insights from previous comparisons
· Finally, we rated the top five regions Link:Source Code

## POSITIONS OF RESPONSIBILITY

**Event Co-Head** 2019
*Youth Entrepreneurial Society(YES)* *NUST, Islamabad*

I with my Team conducted and organized the 2 technology and entrepreneurship events:
· Lounging with an Entrepreneur 4.0, Guest: Mr. Zain Ashraf Mughal
· A Talk with Leon Crisp (CEO & Founder of SecureVirtual and Ortoo Ltd.)

**Executive Admin Events** 2019
*Youth Entrepreneurial Society(YES)* *NUST, Islamabad*

I performed executive duties under the Admin Events team

**Executive Publications** 2019
*NUST Depating Society* *NUST, Islamabad*

While Performing executive role under NUST Debating Society I was responsible for working under the Publication Team & assisting NUST-IV debating competition

**Executive Graphics** 2019
*IEEE* *NUST, Islamabad*

I was responsible for the social media graphic designing for IEEE events

## COURSES

- Data Science
- Machine Learning
- Natural Language Processing
- Data Warehousing
- Database Systems
- Data Structures and Algorithm
- Probability & Statistics
- Software Quality Engineering
- Speech & Image Processing
- Object Oriented Programming
- Sequence Modeling

## CERTIFICATIONS

**1- Basic Sentimental Analysis with TensorFlow** 2020
*Coursera* *Online*

**2- Master Data Analysis with Python - Intro to Pandas** 2020
*Udemy* *Online*

**3- Queen Mary University of London IOT workshop** 2018
*QMU* *NUST, Islamabad*

## EXTRA-CURRICULAR ACTIVITIES/ HOBBIES

- Blog writing
- Poetry
- Painting
- Sketching
- Book reading
- Podcast recording

- Graphic designing
- Video editing
- Journal writing
- Photography
- Interior designing