

# Arslan Faisal

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## EDUCATION AND HONORS

**Cleveland State University**, Department of Electrical Engineering and Computer Science Cleveland, OH  
Master of Computer Science December 2021 to currently enrolled

- Relevant Courses: Data Mining, Enterprise DB and Systems, Artificial Intelligence, Deep Learning, and Analysis of Algorithm
- Cumulative GPA: 3.8/4.0

**The University of Lahore**, Department of Electrical Engineering and Computer Science Lahore, Pakistan  
Bachelor in Computer Science, August 2015 to September 2019

- Relevant Courses: Data structures and Algorithms, Artificial Intelligence, Computer vision, Database system, Operating system, Computer Architecture, etc. **Final Year Project First Person / Third Person war game.**
- Cumulative GPA: 3.01/4.0

## PROFESSIONAL EXPERIENCE AND PROJECTS

**Research Assistant** Cleveland, Ohio  
Artificial Intelligence and Computer Vision Lab, Cleveland State University 01/2022 – Present

- Implemented data mining and analytics solutions to various business problems and worked with complex data sets and translating data into insights to drive key business decisions.
- Done predictive analytics with statistical algorithms such as Regressions, ANNs, Decision Tree, Random Forest, Correlation, Multivariate Analysis, Cluster Analysis, and others.
- Used Tableau and Microsoft Power BI to design dashboards.

### Query Optimizer

Performance Evaluation Experiment on Query Rewrite Optimization 09/2021 – 12/2021

- The purpose was to process the cost of the SQL query, rewrite optimized query and find best execution plan.
- The calculation of best execution plan by iterating through join order and methods.
- Computation of query processing cost, disk I/O cost, disk access time and data transfer rate.

### Covid-19 Detection using CNN and image processing

- The project was to classify the chest x-rays images of patients to estimate the existence of covid in their body.
- The use of **Keras** and **Tensorflow** for implementation of deep learning models (CNN) with different initializers like ADM and SGD.
- The Sliced data using **sklearnmodel**\_section for testing and training and added layers for filters and activation to the convolutional neural network.

### Natural Language Processing using Word2Vec

- The goal of the project was to generate word embedment with two layered neural networks.
- Implementation of Word2Vec using genism library
- The training methods used in this project are a **continuous bag of words (CBOW)** and **skip-gram**

## TECHNICAL SKILLS

**Languages:** Python, R-Programming, SQL, JavaScript, C++

**Machine Learning:** Natural Language Processing, Imaging Recognition, and Detection, Forecasting, K-means Clustering, SVM, Single Layer Perceptron, Multi-Layered Perceptron, Word2Vec, CBOW, skip-gram

**Artificial Intelligence:** Text Comprehension, Classification, SVM, Pattern Recognition, and Recommendation Systems

**IDE and Version Control:** Jupyter Notebook, Spyder, SQL Server, Visual Code, Visual Studio, GitHub, Git

**Python Packages:** NumPy, Pandas, Scikit-learn, TensorFlow, SciPay, Matplotlib, OpenCV, CV2, Sklearn, Keras

**Soft Skills:** Teamwork, Creative Thinking, Problem-Solving, and Leadership

**Visualization:** Tableau Desktop, Microsoft Power BI

**Analytical Methods:** Advance Data Modeling, Regression, Forecasting, Predictive, Semantic, Associative Analysis, Behavioral Modeling, Linear Modeling, Predictive Modeling, Statistics analysis

## LEADERSHIP

**Teacher Assistant** Cleveland, OH  
Foundations of Computer Science + Software Engineering (Cleveland State University) Oct 2021 – Present

- Collaborated with the instructor to lead recitations, grade coursework, and answer 60+ students' questions.
- Preparing Tutorial of Html, CSS, Bootstrap, JavaScript and go through fundamentals of software Engineering.

### Greeter / Wheelchair Assistance

Vaccination center (Wolstein Center at Cleveland State University) Cleveland, OH  
April 2021 – July 2021