

Shahbaz Ali

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EDUCATION

Lahore University of Management Sciences, Lahore

Lahore, Pakistan

MS in Computer Science, CGPA 3.34

July 2019 - May 2021

Courses Taken: Machine Learning, Design and Analysis of Algorithms, Deep Learning, Computer Vision, Advanced Operating System, Applied Probability, Digital Image Processing, Computer Architecture

Teaching Assistant: Machine Learning, Intro to Artificial Intelligence, Design and Analysis of Algorithms, Deep Learning, Hardware Architecture for Artificial Intelligence

Government College University, Lahore

Lahore, Pakistan

BS Computer Science, GPA 3.43

Aug. 2014 - May 2018

Courses: Operating Systems, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Machine Learning, Networking, Databases, Theory of Automata, Compilers Construction

EXPERIENCE

Technical Content Engineer

Feb 2021 -

Educative, Inc

Lahore, Pakistan

- Managed different courses on Educative.io

Software Development Engineer

July 2018 - November 2019

Skills Knight Studios

Lahore, Pakistan

- Worked on different cross platform mobile games. Mostly added features or updates to the games already published on Play Store and App Store.
- Maintained a match 3 game with large user base. Removal of bugs reported by users and also quarterly major/minor feature updates

PROJECTS

Deep Convolutional Generative Adversarial Network (DCGAN) | *Python, Keras*

April 2020

- Assignment of Deep Learning course implemented using Convolutional Layers
- Generated images of emojis (with good results) from Apple Emojis Dataset
- Designed both generator and discriminator networks

Recurrent Neural Network (RNN) | *Python, Keras*

May 2020

- Cleaning the dataset by removing stop words, punctuation, and html tags
- Positive/Negative classification of movie reviews from IMDB dataset

File System (Linux) | *C*

May 2020

- Basic file-system which has all basic functions like open(), close(), read(), write(), format(), unlink()
- Managed multiple users accessing the same files simultaneously

Memory Management (Linux) | *C*

April 2020

- Mimic the functionality of malloc() and free() in C without using any external API
- Added functionality like expand, coalesce and release for more efficient Memory Management

Web Server (Linux) | *C*

March 2020

- Primitive Multi-threaded Clients and Multi-threaded Server model
- Clients send a request(using socket programming), which is completed and acknowledged by Server

Addictive Gem Match Mania (Mobile Game) | *C#, Unity Engine*

Dec 2018 - Nov 2019

- Match 3 mobile game for Android and iOS
- Added core features to the game
- Also fixed user reported bugs in the game (with 100000+ users)

Clothing Classification (Neural Network) | *MATLAB*

June 2018

- Implemented & designed the architecture of Neural Network from scratch
- Implemented Backpropagation algorithm to learn the best color combination of clothes
- Semester Project for Computer Vision Course

Handwritten Digit Classification (Neural Network) | MATLAB

March 2018

- Implemented & designed the architecture of Neural Network from scratch to work on MNIST Dataset
- Implemented Backpropagation algorithm to learn the best color combination of clothes
- Semester Project for Machine Learning Course

Among the Dead Ones! (Desktop Game) | C#, Unity Engine

Feb 2018 - July 2018

- FPS Survival Shooter game for Desktop platform, worked as a part of my Final Year Project for Undergraduate
- Designed and programmed AI Zombies (NPC) for the game.
- Extensive work on Unity NavMesh System in collaboration with Unity's Macanim System to control the root motion of NPC Zombies
- Slide-free and accurate pathfinding for zombie character
- Ragdoll System to detect bullets with re-animation feature for Zombies & Audio Collection System with Scriptable Object

CrickSick Scoring Application (Android Application) | Android Studio

May 2017

- Application for scoring/recording cricket matches
- Simple User Friendly interface to detect all the event of cricket match
- Semester project for Software Engineering Course

TECHNICAL SKILLS

A very good understanding of OOP concepts

Familiarity and understanding of relational databases like SQL

Good in logical and structural thinking

Languages: Python, C, C++, MATLAB, C#, Java

Frameworks: Keras, TensorFlow, PyTorch

Developer Tools: PyCharm, Spyder, Jupyter Notebook, Git, VS Code, Visual Studio, Unity, Android Studio

Libraries: pandas, NumPy, Matplotlib, OpenCV, Scrapy