

Qazi Arsalan Shah

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INTRODUCTION Computer Science Senior at Namal University, Mianwali. A forward-thinking individual with refined multitasking skills. Hard-working and flexible to learn new technologies. Keen interest in AI/ML and software development, pursuing my final year project in computer vision.

EDUCATIONAL BACKGROUND **Namal University**, Mianwali
Bachelors of Science in Computer Science (BSCS)
Expected Date : July, 2022
CGPA 3.82

Govt Post Graduate College , Kohat
Intermediate (FSc)
July 2018
A+ Grade

Iqra Public School And College, Kohat
Matriculation
June 2016
A+ Grade

TECHNICAL SKILLS **Languages:** C/C++, Java, Python, Javascript, PHP
Operating Systems : Linux , Microsoft Windows
Tools/Framework : Django, Flask, Tensorflow, PyTorch
Databases : MYSQL, PostgreSQL
Libraries : Numpy, Pandas, OpenCV, PyQt, Matplotlib, Scipy, Keras
Security Tools : NMAP, Maltego

PROJECTS **FYP - Fast and Accurate Objector and Tracker** **OCT 2021**

Trying to develop light-weight, Fast and accurate object detector and tracker that can be deployed on edge devices for real-time inference. Its being supervised by Dr. Ijaz Akhter (Senior Research Scientist Keeptruckin) and Dr. Junaid Akhter from Namal.

- **Library/Framework:** Tensorflow, Keras, Pytorch, Darknet, YOLOv5
- **Programming Languages:** Python

Namal Project Showcase Mobile-App **July 2021**

Mobile Web Application developed for Namal students and teachers to manage projects. Students can upload projects, select supervisor, get projects approved etc.

- **Code:** <https://github.com/qazi112/Namal-Showcase-App-Android>
- **Tools:** Android Studio, VS Code
- **Library/Framework:** Flask
- **Programming Languages:** Python, Java

Port Scanning Protocol Design **June 2021**

In Computer Networking course, designed complete protocol for port scanning with guidelines for developer.

- **Report:** <https://github.com/qazi112/port-scanning-protocol>

Pepper Bell Disease Detection/Classification

May 2021

Implemented Alex-Net and custom CNN model for pepper-bell disease classification. Detailed comparison of both models is reported in paper.

- **Code:** <https://github.com/qazi112/Plant-Disease-PepperBell>
- **Frameworks/Libraries:** Tensor-flow, Keras

Face Mask Classification Web-App

January 2021

Used Convolution Neural Network to create and train face mask classification model. Then deployed it on website for real time testing.

- **Code:** <https://github.com/qazi112/ML-CNN-FACEMASK-WEBSITE>
- **Demo Link 1:** <https://youtu.be/HSlcEuTu8Ro>
- **Demo Link 2:** <https://bit.ly/3xOXr98>

Automated Reports Generation

Nov - Dec 2020

Automated reports generation mechanism from server's log files. Done under internship program for real client.

- **Languages:** Python , HTML, CSS
- **Libraries:** Numpy, Pandas, Weasyprint , jinja2
- **Code:** https://github.com/qazi112/SPS_SALAR/tree/master/Clean_Code_Final

AI Agent Snail Game

Oct - Nov 2020

Developed 2D Game with AI snail-bot. Used depth-limited mini-max algorithm with A* search heuristics to find optimal path.

- **Language :** Python
- **Video Demo:** <https://youtu.be/SQH2BnpUDK0>
- **Code:** <https://bit.ly/3nQRMuI>

Template Matching Using Genetic Algorithm

Nov 2020

Developed a template matching algorithm in python using "Genetic Algorithm - Based on Darwin's theory of Natural Selection".

- **Libraries Used:** Numpy , Matplotlib , PIL
- **Code:** <https://bit.ly/3nTFYry>

Employees Management And Payroll System

July - Aug 2020

A web application for managing employees in an organization. It contains a complete pay slip generation mechanism.

- **Languages and Databases:** Php , HTML, CSS , Javascript, MYSQL
- **UI Framework:** Bootstrap
- **Code:** <https://github.com/qazi112/DataBaseProject>

Movie Search Engine

Dec 2019

Developed a movie search engine that searches and ranks top movies by IMDB. Hashing is used and experimented with combination of separate chaining and AVL tree for fast search.

- **Language:** C++

- **Code:** https://github.com/qazi112/DSA_Project
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WORK EXPERIENCE

- **Aug, 2021 to Dec, 2021** - Software Engineering Intern (AI Infra) at KeepTruckin.
 - **Nov, 2020 - Aug, 2021** - Intern at SPS - Software Productivity Strategists.
 - **Feb, 2021 - Sep , 2021** - Research Assistant(RA) of Dr. Junaid Akhter.
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MAJOR COURSES

- Data Structures and Algorithms • Artificial Intelligence • Software Engineering
 - Data Base Systems • Object Oriented Programming in C++ • Operating System
 - Analysis Of Algorithms • Programming Fundamentals • Computer Networking
 - Machine Learning • Mobile Application Development • Web Technologies
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ADDITIONAL ACTIVITIES

- **President** - Namal Literary and Debating Society
 - Director Media and Marketing at Namal Society For Social Impact (NSSI)
 - Participates in Hacker Rank for solving different problems.
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REFERENCES

- **Dr. Malik Jahan Khan** - Associate Professor at Namal University Mianwali
Department of Computer Science PhD (LUMS, Pakistan)
Contact : *malik.jahan@namal.edu.pk*
- **Dr. Junaid Akhter** - Associate Professor at Namal University Mianwali
Department of Computer Science PhD (LUMS, Pakistan)
Contact : *junaid.akhter@namal.edu.pk*
- **Dr. Tanvir Afzal** - Professor/Director QEC
Department of Computer Science PhD (TU Graz, Austria)
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