




# Fizza Rubab, B.Sc.

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in fizza-rubab

## Education

- 2019 – 2023  **B.Sc. Computer Science, Habib University**  
CGPA: 3.99/4.00  
Thesis Title: *Developing an emergency application under Aga Khan University's flagship Pakistan Life-saver Program for mobilization of lifesavers*
- 2017-2019  **Higher Secondary School Certificate, Aga Khan Higher Secondary School** in Pre-engineering  
Grade: 94.5%, First Position all over Pakistan
- 2015 – 2017  **Secondary Secondary School Certificate, P.E.C.H.S Girls School** in Computer Science  
Grade: 94%, First Position all over Pakistan

## Work Experience

- Dec 2022 – Present  **Python Machine Learning Developer** at Aks IQ **Karachi, PK**  
Used machine learning and pretrained Automatic Speech to Text models such as Whisper and Text to Speech models to create an intelligent transcript based video editor application. Deployed machine learning models for Hscore prediction. Built intelligent information retrieval system for product descriptions.
- Jan 2023 – Present  **Teaching Assistant for Natural Language Processing Course** at Habib University **Karachi, PK**  
Provided support to the instructor by conducting weekly hours, tutoring sessions and designing and grading reading assignments.
- Dec 2022 – Present  **Virtual Machine Learning Intern** at Empathic Computing Lab (ECL) **Auckland, NZ**  
Cleaned and filtered EEG VR data and understood its relationship. Used machine learning and deep learning techniques to obtain and analyze neurophysiological measures of Working Memory and the Cognitive Pupillary Response on Memory Tasks.
- Aug 2022 – Dec 2022  **Teaching Assistant for Nature of Computation Course** at Habib University **Karachi, PK**  
Provided support to the instructor by conducting weekly recitations and tutoring students in office hours on complexity and computability theory.
- May 2022 – Sep 2022  **Google Summer of Code 2022 Contributor** at COPASI.org, **Connecticut, US**  
Contributed to open-source development for Cloud COPASI under National Resource for Network Biology (NRNB) by developing a new version that allows users to gain predefined access to UConn's HPC without configuration.
- Jun 2022 – July 2022  **Backend Intern** at Securiti.ai **Karachi, PK**  
Created algorithms to assist the content classification (cc) backend team to increase efficiency of the product. Developed Logfile Analyzer using SVM model in python, Regex merger algorithm for one go postal code extraction and Powerpoint data extractor using Apache POI.
- Jan 2022 – June 2022  **Developer for Canvas LMS** at Habib University **Karachi, PK**  
Worked on an ed-tech project of creating a course files tool for automatic download of course contents and reports directly from Canvas LMS.
- Jul 2021 – Aug 2021  **Workshop Facilitator at Habib University** at Habib University **Karachi, PK**  
Facilitated and taught a 10-lecture intensive programming fundamentals workshop to incoming batch of students.
- Jun 2021 – Aug 2021  **Information Security Intern** at Bank Islami Pakistan Limited **Karachi, PK**  
Analyzed websites and applications, reported the vulnerabilities found in a formal way and hunted threats using SIEM IBMQradar.
- Jan 2021 – May 2021  **Teaching Assistant for Discrete Mathematics Course** at Habib University **Karachi, PK**  
Provided support to the instructor by conducting weekly recitations and tutoring students in office hours to build a strong mathematical and computer science foundation.

## Work Experience (continued)

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- **Teaching Assistant for Object Oriented Programming Course** at Habib University Karachi, PK  
Provided support to the instructor by conducting weekly recitations, grading labs and tutoring students in office hours on OOP concepts.

## Awards and Achievements

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- **Dean's List Award for Fall 2022**, at Habib University
- **Dean's List Award for Spring 2022**, at Habib University
- **2nd Position in Digital Pakistan, Cybersecurity Hackathon 2021**, at Ignite
- **President's List Award for Year 2021**, at Habib University
- **Dean's List Award for Fall 2021**, at Habib University
- **Dean's List Award for Spring 2021**, at Habib University
- **Dean's List Award for Fall 2020**, at Habib University
- **HU-TOPS 100% merit Scholarship for Undergraduate**, at Habib University
- **First Position all over Pakistan for HSSC Examinations**, awarded by Aga Khan University
- **First Position all over Pakistan for SSC Examinations**, awarded by Aga Khan University

## Online Courses

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- **The Data Scientists Toolbox**. Awarded by John Hopkins University, *Coursera*
- **Introduction to Data Science in Python**. Awarded by University of Michigan, *Coursera*
- **Technical Support Fundamentals**. Awarded by Google, *Coursera*
- **AI for Everyone**. Awarded by DeepLearning.AI, *Coursera*
- **Understanding Data Science**. Awarded by *Datacamp*
- **Understanding Data Engineering**. Awarded by *Datacamp*
- **Understanding Machine Learning**. Awarded by *Datacamp*
- **Understanding Cloud Computing**. Awarded by *Datacamp*
- **Data Science in Business**. Awarded by *Datacamp*

## Research

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- **Poet Attribution of Urdu Ghazals using Deep Learning**
- **Survey on Autism prediction and diagnosis using Hidden Markov Models**
- **Survey on Haptic Feedback in Tele-Operated Surgical Robots**

## Projects

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- **Pakistan Lifesavers Programme Mobile Application for Mobilizing First Aid**
- **Redesigning Cloud COPASI for UConn Pool Connection**
- **Copy Move Forgery Detection using KD Trees**
- **Log File Analyzer using Support Vector Machine**
- **Microsoft Office files data extractor utility using Apache POI**
- **Canvas Learning Management System Coursefiles Extractor**
- **Post'Em Learning Tool for feedback upload using CSV on LMS**
- **Flight Simulator using WebGL**
- **'The State of Us' Ray Tracing Render using OpenCV**
- **Lexical Analyzer, Parser and Semantic Analyzer in Python**

## Skills

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Languages	■ Strong reading, writing and speaking competencies for English (TOEFL 118/120) and Urdu.
Coding	■ Python, Java, R, C, C++, C#, SQL, $\LaTeX$ , ...
Databases	■ MySQL, PostgreSQL, SQLite, MongoDB, Neo4j, Redis
Web Dev	■ HTML, CSS, JavaScript, Django, Flask, Flutter, React, Nodejs
Cloud	■ Amazon Web Services, Google Compute Cloud, Condor, Docker, Kubernetes
Data Science	■ Numpy, Pandas, Sklearn, Pytorch, Tensorflow, hmmlearn
Misc.	■ Academic research, teaching, public speaking, $\LaTeX$ typesetting.