

# ROHAIL QAMAR



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Google Scholar : <https://scholar.google.com/citations?user=ZEWdRTMAAAAJ&hl=en>

## Career Objective

As a computer scientist committed to excellence in teaching and focusing on problem-solving skills, seeking a position to leverage expertise in machine learning to advance students' academic and professional success. Dedicated to creating an enriching learning environment through innovative pedagogy and contributing to the academic community through impactful research endeavors. I would like to develop products of value to both the research community as well as common people. My top priority is to deliver my professional responsibilities with competency, honesty, and integrity.

## Work Experience

- Lecturer at CS&IT Department, NED University (**Oct 2022 – up till now**)
- Lecturer at Department of Computing Hamdard University (**Mar 2021 – Oct 2022**)
- Coordinator Software Engineering, Hamdard University (**Dec 2021 – Oct 2022**)
- CTMC (Courses and Time Table Management Committee) In-charge FEST, Hamdard University (**Nov 2021 – Oct 2022**)
- Lecturer at Nazeer Hussain University (**Nov 2019 – Mar 2021**)
- Visiting lecturer at Computing Department at Hamdard University (**Dec 2020 – Mar 2021**)
- Visiting lecturer at BS-Technology at Hamdard University (**Jan 2021 – May 2021**)
- Faculty member at Aptech Computer Education (**Aug 2018 – Feb 2019**)
- Trainee Senior Management at National Refinery Limited (**Oct 2017 – May 2018**)
- Computer Operator at National Clearing and Forwarding Agency (**Jun 2011 – Aug 2017**)

## Publications

### Journal

- L.F. Naz, R. Qamar, R. Asif, S. Hina, M. Imran, S. Ahmed, “Intelligent Energy Management in IoT-Enabled Smart Homes: Anomaly Detection and Consumption Prediction for Energy-Efficient Usage,” Mehran University Research Journal of Engineering and Technology, doi: <https://doi.org/10.22581/muet1982.3291>
- M. Hassan, S. Ahmed, R. Qamar, S. Hina, and H. Farman, “An NLP Approach to Predict and Suggest Next Word In Urdu Typing”, VFAST trans. softw. eng., vol. 12, no. 4, pp. 158–166, Dec. 2024, doi: <https://doi.org/10.21015/vtse.v12i4.2011>
- L.F. Naz, R. Qamar, R. Asif, M. Imran, and S. Ahmed, “Robot Vision over CosGANs to Enhance Performance with Source-Free Domain Adaptation Using Advanced Loss Function,” Intell. Automat. Soft Comput. , vol. 39, no. 5, pp. 855-887, 2024, doi: <https://doi.org/10.32604/iasc.2024.055074>

- Naz, L.F., Qamar, R., Asif, R., Ahmed, S., Imran, M., (2024). "BlockEstate: Revolutionizing Real Estate Transactions through Hyperledger-Based Blockchain Technology", *Technology & Applied Science Research*, 14(1), 12652-12658, doi: <https://doi.org/10.48084/etasr.7105>
- S. Ahmed, M. Imran, R. Qamar, A. Hussain, R. H. Akbari, and A. Rehman, "A Novel Approach to Improve Question Answering System", *VAWKUM trans. comput. sci.*, vol. 12, no. 1, pp. 149–162, Jun. 2024, doi: <https://doi.org/10.21015/vtcs.v12i1.1796>
- M. A. Mannan, R. Qamar, I. U. Khan, A. Hussain, S. Ahmed, and J. Khan, "Evaluating the Performance of Machine Learning Classifier Algorithms for Software Estimation in Software Development Projects", *VFAST trans. softw. eng.*, vol. 12, no. 1, pp. 70–78, Mar. 2024, doi: <https://doi.org/10.21015/vtse.v12i1.1770>
- R. Qamar, R. Asif, L. Falak Naz, A. Mannan, and A. Hussain, "FlightForecast: A Comparative Analysis of Stack LSTM and Vanilla LSTM Models for Flight Prediction", *VFAST trans. softw. eng.*, vol. 12, no. 1, pp. 13–24, Mar. 2024, doi: <https://doi.org/10.21015/vtse.v12i1.1740>
- Adeel Mannan, R. Qamar, and Saadia Arshad, "Semi-Automated Approach for Evaluation of Software Defect Management Process using ML Approach", *VAWKUM trans. comput. sci.*, vol. 12, no. 1, pp. 20–33, Mar. 2024, doi: <https://doi.org/10.21015/vtcs.v12i1.1722>
- K. Mahboob, M. H. Shahbaz, F. Ali1, and R. Qamar, "Predicting the Karachi Stock Price index with an Enhanced multi-layered Sequential Stacked Long-Short-Term Memory Model", *VFAST trans. softw. eng.*, vol. 11, no. 2, pp. 249–255, Jun. 2023, doi: <https://doi.org/10.21015/vtse.v11i2.1571>

### **Conference**

- M. Jawwad, S. M. Zaryab, A. R. Chohan, M. R. Ahmed, M. M. Khan and R. Qamar, "Examiti: Revolutionizing Exam Paper Creation and Quality Evaluation Using Artificial Intelligence," *2024 4th International Conference on Innovations in Computer Science (ICONICS)*, Karachi, Pakistan, 2024, pp. 1-9, doi: <https://doi.org/10.1109/ICONICS64289.2024.10824530>
- S. M. Nabeel Mustafa, M. Umer Farooque, M. Tahir, S. M. Khan and R. Qamar, "Frameworks, Applications and Challenges in Streaming Big Data Analytics: A Review," *2022 3rd International Conference on Innovations in Computer Science & Software Engineering (ICONICS)*, Karachi, Pakistan, 2022, pp. 1-6, doi: <https://doi.org/10.1109/ICONICS56716.2022.10100410>

### **Chapter**

- Qamar R., Asif R., Kumar P., Ali S.A. (2022) "Framework for Mid-Air Traffic Collision Detection Using Data Analytics. In: Kumar P., Obaid A.J., Cengiz K., Khanna A., Balas V.E. (eds) "A Fusion of Artificial Intelligence and Internet of Things for Emerging Cyber Systems". Intelligent Systems Reference Library, vol 210. Springer, Cham. [https://doi.org/10.1007/978-3-030-76653-5\\_24](https://doi.org/10.1007/978-3-030-76653-5_24)

### **Software Programming Skills**

- |              |                     |             |
|--------------|---------------------|-------------|
| ▪ Python     | ▪ SQL Server        | ▪ C/C++/C#  |
| ▪ Streamlit  | ▪ Matlab            | ▪ Java      |
| ▪ Flask      | ▪ HTML-5/CSS-3      | ▪ Ms-office |
| ▪ PostgreSQL | ▪ Javascript/jquery |             |
| ▪ ML/DL      | ▪ Bootstrap         |             |

### **Core Teaching Expertise (Undergraduate)**

- |                           |                         |                   |
|---------------------------|-------------------------|-------------------|
| ▪ Data Mining             | ▪ Discrete Structures   | ▪ Object-Oriented |
| ▪ Data Science            | ▪ Compiler Construction | Programming       |
| ▪ Artificial Intelligence | ▪ Programming           | ▪ Data Structures |
| ▪ Database Systems        | Fundamentals            |                   |

### Core Teaching Expertise (Postgraduate)

- Machine Learning
- Tools & Techniques for Data Science
- Data Analytics
- Business Intelligence

### Achievement

- **Gold Medalist** on procuring **highest CGPA** in Computer Science department
- **Distinction** on securing **4.00 GPA** in semester 3<sup>rd</sup>, 7<sup>th</sup> & 8<sup>th</sup>
- **Scholarship** awarded in semester 4<sup>th</sup>, 6<sup>th</sup> & 7<sup>th</sup>

### Academic Qualification

- Ph.D. in Computer Science from NED University in progress **CGPA “3.85” (2022 – up till now)**
- MS (DEIM) from NED University **CGPA “3.43” (2018-2020)**
- BS (CS) from Hamdard University (UIT) **CGPA “3.95” (2013-2017)**
- HSC from Intermediate Board, Karachi **Grade “A” (2010-2012)**
- SSC from Matric Board, Karachi **Grade “A” (2008-2009)**

### Master Thesis Supervision / Co-Supervision

- A Comparative Analysis of Vehicle Insurance Fraud Detection Using Supervised Learning
- Optimizing Solar Energy Utilization: Predictive Modeling and Comparative Analysis in Pakistan
- Enhancing Decision-Making in Cryptocurrency Market using Predictive Modeling and Sentiment Analysis
- Towards Sustainable AI: Evaluating Energy Efficiency of Machine Learning Models
- Enhancing Computational Efficiency in CNNs: A Comprehensive Approach to Model Compression
- AI based Automated Anomaly Detection Framework for Mobile Apps
- Benchmarking Supervised Learning Models by Energy Efficiency
- Explainable AI for Deepfakes Forensics A Hybrid DCGAN Based Framework with Enhanced Robustness

### THESIS & FYP

- Flight Traffic Collision Avoidance System Using Data Analytics (Thesis)
- 3D Scanning of Archaeological Objects (FYP)
- Lungs Segmentation (Indus Hospital) [<https://goo.gl/AxgE6P>]

### Certifications

- NVIDIA Certified for Fundamentals of Deep Learning
- Udemy Certifications
  - ✓ Deep Learning Recurrent Neural Networks in Python
  - ✓ Learn Streamlit Python
  - ✓ Spatial Analysis & Geospatial Data Science in Python
  - ✓ Time Series Analysis Real World Projects in Python
  - ✓ Data Privacy and Anonymization
  - ✓ Python & Introduction to Data Science

- ✓ Data Science Master Machine Learning Without Coding Rapid Miner
- AZ-900 Microsoft Azure Fundamentals
- Aptech Computer Education Certified Trainer
  - ✓ SQL Server 2016
  - ✓ Java Fundamentals
  - ✓ Programming Fundamentals
  - ✓ Office – 2013
- Web Designing from Aptech