Shadab Hussain

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Shadab is a global technology leader at the forefront of Artificial Intelligence and Quantum Computing. As a Senior Associate at MathCo, he spearheads innovations in Generative AI, shaping transformative solutions for tomorrow's challenges.

Co-founder of Quantum Computing India and a former Developer Advocate at the London Stock Exchange Group, Shadab's work bridges cutting-edge engineering with real-world impact. He is recognized as a Google Developer Expert for Al/ML (GenAl) and an AWS Community Builder, holding certifications in AWS and Google Cloud Machine Learning.

An accomplished author and thought leader, Shadab has shared his expertise at premier industry events, inspiring audiences worldwide with his vision for the future of technology. His contributions continue to influence the evolution of AI and quantum computing on a global scale.

Work Experience

Co-Founder, Quantum Computing India

12/2019 - Present

Lead Engineer, The Math Company

08/2022 - Present

- Managing the entire lifecycle of Gen AI model development, including training, testing, deployment, optimization, and performance monitoring
- Developing prompts that resonate with users and enable meaningful interactions by understanding diverse topics, industries, and user personas
- Contributing to R&D initiatives involving open-source Language Models and existing generative AI systems, utilising publicly available and licensable code
- Created, trained and deployed a cross-functional team of data scientists and data engineers for different clients
- Using production-ready platforms right from the start of the project on cloud platforms like GCP and AWS
- Monitoring solutions with optimization techniques to understand performance anomalies in Machine Learning Lifecycle
- Adopting higher-level automation and abstractions wherever possible

Developer Advocate, London Stock Exchange Group

09/2021 - 07/2022

Identifying strategic partnership opportunities to grow the LSEG developer community

- Building inspiring demos, sample apps and continuously improving the developer experience of LSEG APIs
- Creating momentum and driving adoption of LSEG platforms through interactions with developers building applications and businesses
- Influencing the direction of LSEG developer products by gathering insights from the developer community
- Building Analytical Dashboard to understand users

Assistant Manager-Data Science, Genpact

12/2020 - 09/2021

Worked with a healthcare client to optimize their existing workflow and explore new opportunities with the existing data through data wrangling, demand forecasting, and generating a report for pacing rate

Associate Data Scientist, The Math Co.

10/2019 - 12/2020

- Developed insights module to explain the ML models built
- Built a contextual AI product to automate and prototype ML workflow for a tech giant in retail industry
- Having hands on experience in building recommendation engine, Churn, Acquisition, and CLTR model
- Built a humanoid chatbot which was consumed as a Virtual Data Scientist with features like Visualization Decision Engine, Domain Capability, etc
- Experience in using AWS (EC2, S3, RDS, EMR, Sagemaker) and GCP (DataProc, Big Query, GCS, APIs) services

Data Scientist, Proven Consult

05/2019 - 09/2019

- Worked on enhancing image quality on top of OCR Space engine to generate multiple insights
- Automated data processing from multiple sources on their RPA tool
- Built a pipeline to convert unstructured data into a structured format for analysis for a logistics client

Consultant, Pluralsight

12/2018 - 04/2019

Developed and reviewed blueprints and questions for the data science and machine-learning assessments available on the Pluralsight portal.

Systems Engineer, Infosys Ltd

12/2017 - 05/2019

- Worked on automating machine learning certification platform which is used by 3L+ Infosys employees internally
- Built a sales forecasting model for the next three months

 Built a DL model using ResNet50 architecture on Flickr8K dataset for generating captions of any input image

Education

MBA in Leadership and Management

Valar Institute of Quantic School of Business and Technology 2024-Present, USA

Post Graduate Diploma in Data Science

International Institute of Information Technology 09/2018 - 09/2019, Bangalore, IN

Bachelor of Technology- Computer Science

United Institute of Technology 07/2013 - 06/2017, Allahabad, IN

Achievements

- Session Chair for International Conference on Mahakumbh (2025)
- Authoring a book on Azure Quantum Development Kit (2025)
- Authoring a book on Quantum Sensing (2025)
- Lifetime Member of Association of All Computer Science Teachers (2025-Present)
- Received Scholarship for Al-driven MBA under Quantic's Valar Institute 2024
- Google Developer Expert for Al/ML- GenAl (2024-Present)
- Judged GDG (Google Developer Group) hackathon in New York 2024
- Part of Judging Panel for International Quantum Strategy Day Competition organized by Quantum Strategy Institute 2024
- Received scholarship for One-League's Entrepreneurship & Product Innovation program from Stanford Online
- Co-authored a book on "GenAl" (2024)
- Co-authored a book titled "Financial Modeling Using Quantum Computing" (2023)
- Certificate of Appreciation for Dedication and Excellence that made a significant impact on the company's success by The Math Company (2023)
- Runner up for Al21 Labs Hackathon organized by LabLab.ai (06/2023)
- Accepted for fully sponsored QUEST program focusing on developing companies for a specific sectoral focus e.g. quantum or cyber organized by The Quantum Technology Enterprise Centre (QTEC) of the University of Bristol which is part of the UK's National Quantum Technology Programme (2021)
- Awarded with Advance Badge for IBM Quantum Challenge (2021)
- AWS Community Builder for #data (12/2021 Present)
- Completed all the challenges in the first round of QHack organized by Xanadu, ranking among the top 50 participants (2021)

- Certificate of Quantum Excellence, Qiskit Global Summer School by IBM Quantum (2020)
- Certificate of Appreciation for exceptional technical skills and high-quality deliverables by The Math Company (2020)
- Completed IBM Quantum Challenge (2020) Ranked under 20 for Qiskit India Challenge (2020)
- Certificate of Appreciation for contribution to team performance by Infosys (2018)
- Received Swades Foundation Scholarship for PG Diploma in Data Science from Upgrad (2018)
- First winner in Open Source on Azure Hackathon organized by Microsoft & Govt. of Telangana at Hyderabad (2016)
- Certificate of Appreciation for organizing and supporting Microsoft Women in Tech by Microsoft Research (2015)
- Distinction in the Senior Division of Australian National Chemistry Quiz organized by Royal Australian Chemistry Institute (2011)

Talks/Workshops Delivered

- Delivering a talk titled "Qubits to Cures: Quantum ML for Cancer Detection" at Ai4 Conference in Vegas in Aug 2025
- Delivered a talk titled "Post Quantum Cryptography, Al-Based Attacks, Real-World Applications & Industry Use Cases" at Quantum Revolution

 — A Journey Across Orbits (QR aJAO), organized by Indian Association Of Physics Teachers (IAPT) RC 12A & Association of All Computer Science Teachers in Feb 2025
- Delivered a talk titled "From Qubits to Insights: The role of Quantum in Machine Learning" for AICTE Training And Learning (ATAL) Academy 's Faculty Development Program (FDP) on "Securing the Digital Future with Post-Quantum Cryptography" in Feb 2025
- 4. Delivered a talk titled "Quantum Computing & Its Applications" for International Faculty Development Program (FDP) on "Advanced Materials and Characterization Techniques" organized by the Applied Physics Department under the Aegis of IQ QAC in collaboration with Indian Association Of Physics Teachers in Feb 2025
- 5. Delivered a talk titled "Breaking Barriers: How PQC Reshapes Digital Security" for AICTE Training And Learning (ATAL) Academy 's Faculty Development Program (FDP) on "Securing the Digital Future with Post-Quantum Cryptography" in Feb 2025
- 6. Delivered a TEDx talk at the IIIT Kottayam (https://tedx.iiitkottayam.ac.in/) in Jan 2025
- 7. Part of the panel discussions for Quantum Computing in Miami in Dec 2024
- Delivered a tech talk titled "Getting Started with Vertex Al Gemini 1.5 Pro & Flash" organized by AlCamp at Matillion in Denver on Nov 2024
- 9. Delivered a talk titled "Building Intelligent Applications: Harnessing Neo4j and Google Cloud's GenAl" at Google DevFest Atlanta in Oct 2024
- 10. Part of the panel discussion for Knowledge Graphs at Google DevFest Atlanta in Oct 2024

- 11. Delivered a talk titled "Building Intelligent Applications: Harnessing Neo4j and Google Cloud's GenAI" at Google DevFest Merced in Sep 2024
- 12. Delivered a talk titled "Intro to Gemini and Gemma" at Build with AI organized by GDG Bhopal in 2024
- 13. Delivered an online session on LangGraph & Langchain: Revolutionizing Information Access organized by Data Science Dojo in May 2024
- 14. Delivered a talk titled "GenAl on VertexAl" at Build with Al organized by GDG New York
- 15. Delivered a talk at Quantum Tech, Washington DC in April, 2024
- 16. Delivered a workshop on Unveiling the Quantum Leap in Financial Modeling at Quantum Innovation Summit, Dubai 2024
- 17. Delivered MLOps on Azure training at Confidential 2024
- 18. Delivered Data Engineering on AWS training at Confidential 2024
- 19. Delivered a talk on the Application of Quantum Computing for a Faculty Development Program 2023
- 20. Delivered a talk on Data Trust Enabling Data Quality across Modern Data Stack at Data Engineering Summit 04/2023
- 21. Delivered a talk for the Faculty Development Program on Advanced AI and Data Analytics with Implementation Techniques organized by IFERP 2023
- 22. Delivered a workshop on Demystifying MLOps Propelling Models from Prototype to Production at AWS Community Day 03/2023
- 23. Delivered 5 days hands-on training program on MLOps at Confidential 2022
- 24. Delivered a session on "MLOps using VertexAI: Beyond Model Training" for DevFest organized by GDG Yangon in 2022
- 25. Delivered a session on "MLOps using VertexAl" for DevFest organized by GDG Mysore in 2022
- 26. Delivered Training and was Program Manager for Data Science Upskilling organized by ISTE as part of CSR activity whose duration was for around 3 months and ran 3 batches of it
- 27. Equality, Diversity, and Inclusion (EDI) Panel at the University of Bristol where the Discussion was on the importance of EDI in Quantum Computing 2021
- 28. Delivered a talk on Quantum Machine Learning for a National Seminar organized by Easwari Engineering College 2021
- 29. Delivered talk on Portfolio Optimization using Qiskit and Eikon Data API for Alexandria Quantum Computing Group 2021
- 30. Introduction to Qiskit at CEBT, Christ University 2021
- 31. Series of Qiskit Sessions for Quantum Computing India 2020
- 32. Experimentation with Jupyter, Papermill, & MLFlow for ODSC Bangalore Meetup Group 2020, Bangalore, IN
- Data Science and Machine Learning using Python at Sreenivasa Institute of Technology and Management Studies 2020
- 34. Image Classification using TF 2.0 at Nitte Meenakshi Institute of Technology 2019
- 35. Automated Image Captioning using TF 2.0 at Sir M. Visvesvaraya Institute of Technology 2019
- 36. Python for Data Science at Electronics For You Conference 2019

Research Papers

1. Research Paper (Submitted & To be published)

Quantum Transfer Learning for Breast Cancer Detection

Author(s)

A K Srivastava, S Hussain, S Ghosh

2025

International Conference on Communication, Security, and Artificial Intelligence

2. Research Paper (Submitted & To be published)

A Hybrid Classical-Quantum Model for Enhanced MRI-Based Brain Tumor Classification Using Transfer Learning and Quantum Neural Networks

Author(s)

A K Srivastava, S Sharma, N Sharma, S Hussain, S Ghosh, R Rai 2025

International Conference on Communication, Security, and Artificial Intelligence

3. Research Paper (Accepted & To be published)

Hybrid Machine Learning for Feature-Based Spam Detection

Author(s)

S Gupta, S Barigidad, S Hussain, S Dubey, S Kanaujia

2025

International Conference on Computational Intelligence, Communication Technology and Networking

4. Research Paper (Accepted & To be published)

Simulation and Analysis of ML-Based Chronic Kidney Disease Prediction Author(s)

S Gupta, R Sinha, S Hussain, S Kanaujia

2025

International Conference on Advances in Electrical, Computing, Communications and Sustainable Technologies (ICAECT 2025)

5. Review Paper

Application of Neural Networks in Bite Marks Identification: Al perspective in simplifying Forensic Odontology

Author(s)

Singh, S., Hussain, S., Fatima, I., Agnihotri, S.

2022

International conference of forensic Odontology And Child Abuse

6. Research Paper

Novel Deep Learning Architecture for Heart Disease Prediction using Convolutional Neural Network Author(s)

Hussain, S., Barigidad, S., Akhtar, S., & Suaib, M. 2021

7. Journal Article

Assessment of Interpolation Methods for Solving the Real-Life Problem Author(s)

Shadab Hussain, Vivek Srivastav, Srinivasarao Thota 2014

International Conference on Mathematical Science and Applications

8. Scholarly Journals

Quadratically Convergent Algorithm for Computing Real Root of Non-Linear Transcendental Functions

Author(s)

Shadab Hussain, Vivek Srivastav, Srinivasarao Thota, Sheeza Hafeez 2014

National Conference on Applications of Mathematical and Engineering Sciences

9. Scholarly Journals

A new Proposed Numerical Algorithm for Computing Real Root of Functions Author(s)

Shadab Hussain, Vivek Srivastav, Srinivasarao Thota 2015

National Conference on Emerging Trends in Physics of Fluids & Solids

Certifications

- Essentials of Entrepreneurship course by Stanford Online (2024)
- Achieving Innovation through Inspiration course by Stanford Online (2024)
- Career Essentials in Generative AI course offered by Microsoft and LinkedIn
- Generative AI Fundamentals by Databricks
- AWS Certified Machine Learning Specialty (MLS) (11/2022 11/2025)
- Google Cloud Certified Professional Machine Learning Engineer (12/2022 12/2024)
- Deep Learning Specialization by Coursera
- Product Management Mentorship by GrowthSchool
- Insurjo Product Management by The Product Folks

Professional Bodies Membership

 Life Member, Association of All Computer Science Teachers (AACST), India (Membership ID: ILO1202500000116)

Other Reference Links

- 1. Blogs at Medium- https://techwithshadab.medium.com/ (> 218k views)
- 2. LinkedIn- https://www.linkedin.com/in/techwithshadab/
- 3. Recent talks
 - a. Workshop at GDG NYC for Build with Alhttps://gdg.community.dev/events/details/google-gdg-nyc-presents-build-with-ai-hackathon-amp-workshops-amp-iwd-impact-the-future-celebration/
 - b. Talk at Quantum Tech, Washington DChttps://www.alphaevents.com/events-quantumtechus/speakers/shadab-hussain
 - c. Workshop at Quantum Innovation Summithttps://quantuminnovationsummit.com/unveiling-the-quantum-leap-in-financial-modeling/
- 4. Founded Quantum Computing India community
 - a. Website-https://quantumcomputingindia.com
 - b. LinkedIn- https://www.linkedin.com/company/quantumcomputingindia/