Furqan Nasir

furqannr@gmail.com • +92 (333) 957-9504 • [GitHub](#) • [LinkedIn](#) • [LeetCode](#)

Professional Summary

I am an academic and researcher with a background in software engineering and a strong interest in graph theory. I have experience teaching advanced software engineering courses, mentoring student projects, and conducting research in link prediction and complex networks. Proficient in Python and C++, I have worked on integrating generative AI and blockchain to create practical solutions for healthcare and contract management.

Education

Abasyn University ([See here](#))   Peshawar, Pakistan
MS Computer Science. (CGPA: 3.43/4.00)   Jan 2018- Aug 2021
Thesis: Comparative Analysis of Link Prediction in Social Networks

City University of Science and Information Technology ([See here](#))   Peshawar, Pakistan
Bachelor of Software Engineering. (CGPA: 3.45/4.00)   Sep 2011- Mar 2016
Thesis: Lone Warrior(Game)

Achievements

- Got 7.5 Score in IELTS with Listening: 9, Reading: 8, Speaking: 6.5, Writing: 6. ([See here](#))
- 100% Merit Scholarship for outstanding academic performance from 2nd semester onwards during Bachelors at City University.
- Achieved 2nd position in the BSE(Hons) graduating batch in 2011-2015. ([See here](#))
- Secured the first position in the Software Project Exhibition at VisioSpark 2015 among 22 national universities.
- Successfully mentored over 10 final-year students on capstone projects, with significant improvements in their project quality and outcomes.
- Head organizer of Speed Programming competitions at City University, Peshawar(IT Society).

Publications

Conference Paper

Gul, H. *et al.* (2021) *Link prediction using double degree equation with mutual and popular nodes*, *SpringerLink*. Available at: ([Link](#))

Journal Article

Nasir, F. *et al.* (2021) *Comparitive analysis of link prediction in complex networks: Computer Science & IT Journal Article | IGI Global Scientific Publishing*. Available at: ([Link](#))

Experience

City University of Science and Information Technology   Peshawar, Pakistan
Lecturer   Sep 2021 – Present

- Delivered lectures on Software engineering courses including but not limited to Software Requirements and Specifications(CSC-417), Software Re-Engineering(CSC-444), Software Engineering Economics(CSC-223), Software Project Management(CSC-409), Software Construction and Development(CSC-331), Theory of Automata(CSC-221), and Fundamentals of Programming(CSC-110).
- Delivered and updated course syllabi to align with HEC curriculum and industry trends.
- Mentored bachelor students on academic projects for their final year projects.
- Participated in administrative responsibilities such as course scheduling, assessment planning, and accreditation processes.

City University of Science and Information Technology.   Peshawar, Pakistan
Lab Engineer   Oct 2019 – Feb 2021

- Prepared lab materials, including programming exercises to facilitate hands-on learning.
- Delivered instructions and demonstrations to explain functional programming concepts and object-oriented programming concepts.
- Monitored and guided students during lab assignments, offering additional resources and clarification as needed.
- Collaborated with lecturers to ensure alignment of lab sessions with curriculum and course objectives.

Skills

Languages: C++, Javascript, Python.
Version Control: Git, Github.
Data Visualization Libraries: Matplotlib, Seaborn.
Tools: MATLAB, LaTeX/Overleaf, Visual Studio Code, Dev C++, Google Colab.

International Hackathons

AI Agents Hack with LabLab and MindsDB   Lablab
Project: SurgiAI ([See here](#))   Sep 2024

- Pre-Surgery: Gather information to prepare a comprehensive report for surgical preparation.
- During Surgery: Utilizes voice commands of surgical teams if they need information regarding patient history, or if they need to consult AI on any specific surgery procedure in real time.
- Post-surgery: Records patients' conditions during surgery and generates a detailed final report.
- Role: Worked on voice command input using Vosk model in during surgery module, implemented wake functionality to only pass relevant information to CrewAI and generate results.

Generative AI Hackathon with IBM Watsonx   Lablab
Project: LegalChain ([See here](#))   Aug 2024

- LegalChain combines two powerful concepts: Legal and Chain
- Legal Excellence: Offers tools for contract drafting, clause suggestions, compliance monitoring, contract reviews, comparisons and legal document categorization.
- Blockchain Innovation: Transforms traditional contracts into blockchain-based smart contracts for improved security, transparency and efficiency.
- Role: Worked on integrating blockchain with legal documents.

Certifications

- [Generative AI Application Developer Certificate](#)
- [Instructor Cisco Networking Academy](#)
- [Google Project Management: Specialization](#)
- [Programming with Javascript](#)
- [Introduction to Front-End Development](#)
- [Product Management: An Introduction](#)