Muhammad Haris Ahsan
Software Engineer

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Achievements

- *@Harvard University(CS50x_PuzzleDay_Winner):* Our team won 1st place at CS50x Puzzle Day 2025 by solving 9/9 complex puzzles.
- *@GitHub: Achievements Repository*, contains approximately all my achievements of this journey.
- *@Stanford University(Code_in_Place):* Selected as a Section Leader Mentor to teach Python to 100+ international students.
- *@leetcode:* Solved 200+ Data Structures and Algorithms problems.[Github link]
- *@Lablab.ai:* Competed in global AI hackathons, showcasing innovative solutions.
- *@Devpost:* Engaged n international hackathons, solving real-world challenges.
- *@Generative Ai:* Participated in the 'Build with AI' global hackathon, exploring AI-driven innovations.
- *@M{IT}^{2}:* Participated in 'M{IT}^{2} Winter Contest 2025' coding competition and secured #94 position worldwide.
- *Working experience:* 3+ years as a Software Engineer.

Technical Skills

- *Programming Languages:* JavaScript (ES6+), TypeScript, Python, C, C++
- *Web Dev:* HTML5, CSS3, SCSS, SASS, Bootstrap 5, TailwindCSS 4, Shadcn UI, Ant Design, React JS(Context API, Router, State Management), Next.js
- *Backend:* Firebase, Node JS, Express JS
- *Version Control:* Git, Github
- *APIs:* Rest-APIs, GraphQL
- *Databases:* MongoDB, Firestore

Education

Government College University Faisalabad   Dec 2022 - Present
Bachelor of Science in Computer Science   *6th Semester - Ongoing*
- Core coursework: Data Structures & Algorithms, Database Systems, Computer Organization & Assembly Language, Object-Oriented Programming.
- Actively participating in hackathons, coding competitions, and technical communities alongside academic studies.
- Volunteered at seminars and university tech initiatives to support peer learning and outreach activities.

Work Experience

Software Engineer   June 2024 - Sep 2024
Share Mobility   *Ohio, US - Remote*
- Collaborated remotely with a US-based software team on full-stack web development tasks using React.js, Node.js, and MongoDB.
- Built and optimized features, fixed bugs, and contributed to code reviews and agile sprint cycles.
- Enhanced backend APIs and frontend components to improve performance, user experience, and code maintainability.

Bootcamp Training   Jan 2024 - April 2024
Techloset Solutions   *Faisalabad, PK*
- Developed and maintained MERN web apps at Techloset, prioritizing quality, scalability, and efficiency.
- Collaborated with cross-functional teams, implementing complex software features using modern development techniques.
- Experience in integrating web applications with third party APIs and services.

Frontend Developer   Aug 2023 - Dec 2023
Seeraht   *Faisalabad, PK*
- Developed and maintained UI of web apps at Seeraht, prioritizing quality, scalability, and efficiency.
- Collaborated with cross-functional teams, implementing complex software features using modern development techniques.
- Experience in making websites fully responsive for all device sizes.

Volunteer Experience

Section Leader Mentor
Stanford University: Code in Place

Apr 2025 – Present
California, United States · Remote

- [Selected as a Section Leader Mentor](#) from a global pool of applicants for Stanford University's prestigious Code in Place 2025 program.
- Provided personalized 1:1 mentorship to students through Stanford's "TeachNow" sessions, offering tailored support in Python and core programming concepts.
- I helped 100+ international folks worldwide, including countries like the USA, Canada, Russia, the UK, India, Bangladesh, Brazil, Germany, and others.

CTSoc Technical Committee Member
IEEE Computer Society

Mar 2025 - Present
Los Alamitos, California, United States · Remote

- Selected as a [Technical Committee Member for the IEEE CTSoc](#) (Consumer Technology Society), contributing to the advancement of IoT and emerging technologies.
- Collaborating remotely with global professionals to discuss innovations, technical standards, and community initiatives in consumer technologies.
- Participating in webinars, discussions, and knowledge-sharing sessions to stay updated with the latest research and industry trends.

Ambassador
ETL Online

November 2024 – Present
Islamabad ,Pakistan · Remote

- Selected as an [ETL Online Ambassador](#) to represent and promote the community among aspiring tech learners.
- Engaged with participants through online sessions and outreach to expand awareness and participation in ETL programs.
- Actively participating in soft skills training sessions to enhance communication, leadership, and professional development.

Trainer and Moderator
iCodeGuru

August 2024 – Present
Santa Clara, California · Remote

- Delivered Python lectures to underprivileged students, making coding more accessible.
- Taught Data Structures & Algorithms (DSA), focusing on problem-solving and LeetCode mastery.

Hackathons and Competitions

CS50x Puzzle Day – Harvard University | [LinkedIn link](#)
- Participated in CS50x Puzzle Day 2025, a global collaborative problem-solving event hosted by Harvard University.
- Teamed up with international participants to solve algorithmic and logic-based puzzles under time constraints.
- Strengthened analytical thinking, teamwork, and creative problem-solving skills in a fun, competitive setting.

Traversaal AI – AI Agents Hackathon | [[LinkedIn link](#)]
- Secured a **Top 6 position out of 200+ global teams** in a hackathon focused on real-world functional AI agents.
- Designed an agentic AI solution targeting early detection of diabetes through predictive insights.
- Integrated real-time data processing, semantic understanding, and intelligent reasoning to solve a domain-specific healthcare challenge.
- Delivered a functional prototype demonstrating practical use-case, technical depth, and real-world impact.

Advent of Code 2024 | [[LinkedIn link](#)]
- Completed all 25 days of Advent of Code 2024, tackling progressively challenging questions.
- Optimized solutions using dynamic programming, graph traversal, and bitwise operations.
- Ranked among top global participants, demonstrating speed, efficiency, and problem-solving skills.

LabLab AI - AI for Connectivity Hackathon | [[LinkedIn link](#)]
- Competed in a global hackathon with a 5-member team from UAE, Rwanda, and Pakistan.
- Developed an AI-powered solution to improve digital connectivity and network efficiency, focusing on real-time data transmission and accessibility.
- Utilized LSTMs, Transformers (BERT/GPT), and Reinforcement Learning for data processing, NLP, and adaptive decision-making. Applied Embedding Models for analyzing user-uploaded profiles.
- Presented a working prototype to judges, highlighting its scalability and real-world impact in enhancing connectivity.

GenAI - BuildWithAI Hackathon | [[LinkedIn link](#)]

- Collaborated in a team of 8 participants from the US, New Zealand, Switzerland, Germany, and Pakistan.
- Developed an AI-powered chatbot using Generative AI technologies to provide efficient solutions.
- Integrated cutting-edge AI models and collaborated with mentors to refine project ideas.
- Showcased the chatbot's capabilities, emphasizing real-world applications and scalability.

Devpost - XR Design Hackathon | [[LinkedIn link](#)]
- Collaborated in a team of 6 with participants from the US and Pakistan to create an immersive XR experience.
- Developed a React website, a Flutter mobile app, and a GenAI app as part of the project.
- Integrated cutting-edge technologies to create an interactive, cross-platform experience.
- Showcased a functional prototype, demonstrating the potential of XR in real-world applications.

MM{IT}² Winter Contest 2025 | [[LinkedIn link](#)]
- Competed in a global coding contest with a team of 3 participants.
- Secured 94th place worldwide out of 7000+ participants, showcasing strong problem-solving skills.
- Collaborated to solve algorithmic challenges and optimized solutions under time constraints.

LabLab AI - AIstronauts: Space Agents on a mission Hackathon | [[LinkedIn link](#)]
- Developed an AI-powered system to autonomously monitor and optimize critical resources for astronauts in space and disaster-affected communities on Earth.
- Implemented real-time tracking of oxygen, food, power, communication systems, and astronaut health vitals.
- Designed a survival time prediction model using ML to forecast resource usage and issue emergency alerts for proactive crisis management.
- Optimized resource distribution strategies for space missions and disaster relief operations.

LabLab AI - Fall in Love with Deepseek Hackathon | [[LinkedIn link](#)]
- Partnered with a multinational team of six, representing Romania, France, Benin, India, and Pakistan.
- Developed "Comic Me," an AI-powered storytelling platform that transforms text prompts into illustrated comics.
- Utilized Stable Diffusion, React.js, and cloud-based AI processing to generate high-quality, multi-style comics instantly.
- Built a scalable, interactive prototype and showcased its impact on democratizing comic creation through AI.

PROJECTS

Diabetes Prediction AI | Python, Streamlit, NLP, Machine Learning, AI, Agents
- Built a domain-specific AI agent for early diabetes detection using real-time and historical medical data.
- Integrated advanced AI techniques such as **Semantic Search**, **Retrieval-Augmented Generation (RAG)**, and live health data via **Ares API**.
- Designed for usability and reliability to assist healthcare professionals with predictive insights.
- **GitHub Repository:** [GitHub link](#)

CosmoLearn | HTML, CSS, JavaScript, React, TailwindCSS, Python, Flutter, GenAI, XR, AR, VR, Hugging Face
- Developed an XR, AR, and VR educational platform for exploring the solar system.
- Created interactive 3D solar system experiences to simplify complex astronomical concepts, enhancing student engagement.
- Built a multi-platform solution with a web app and mobile app, integrated with GenAI for enhanced learning.
- Led development, ensuring seamless compatibility across platforms and delivering a live demo for global audiences.

- **Live Demo:** [Web Demo](#)
- **GitHub Repository:** [Website UI](#) | [Mobile App](#)

Smart Network Planning | Machine Learning, Vector Search, Large Language Models (LLMs), Milvus, Streamlit, AI, Data Science
- Developed a 5G deployment solution leveraging ML, LLMs, and vector search for optimized network planning and improved connectivity.
- Implemented AI-driven resource allocation and traffic balancing, optimizing 5G network deployment to reduce inefficiencies.
- Automated complex tasks like network analysis and site selection, saving time and reducing errors in 5G planning.
- Designed scalable architecture using Milvus for efficient processing of large datasets, ensuring seamless performance.

- **Live Demo:** [live link](#) (login:'admin', pass:'admin@123')

- **GitHub Repository:** [GitHub link](#)

AURAFem | Python, Streamlit, NLP, Machine Learning, AI, Chatbot Development
- Developed a FemTech web app for ovarian cancer with personalized AI-powered health support.
- Created a conversational AI-agent using NLP for human-like responses and machine learning for continuous improvement.

- Implemented emotional intelligence to enhance user interactions with empathetic responses.
- **GitHub Repository:** [GitHub link](#)

ARMS – Autonomous Resource Management System | AI, Machine Learning, Generative AI, Real-Time Analytics, Crisis Management
- Developed an AI-powered system to autonomously track and optimize critical resources for astronauts and disaster-affected communities.
- Implemented real-time monitoring of oxygen, food, power, and communication systems, ensuring efficient survival strategies.
- Integrated machine learning models to predict survival time based on resource usage and astronaut health data.
- Designed emergency alert mechanisms to notify mission control or emergency teams in critical situations.

- **GitHub Repository:** [GitHub link](#)
- **Live Demo:** [Live Link](#)

Comic Me – AI-Powered Comic Creation | AI, Generative AI, Text-to-Image, Cloud Processing, Web Development
- Developed an AI-driven storytelling platform that transforms text prompts into illustrated comics within seconds, making high-quality comic creation accessible.
- Implemented cloud-based AI processing and database management to ensure seamless performance and scalability.
- Integrated **Stable Diffusion** for text-to-image and image-to-image transformations, enabling multi-style comic rendering.
- Enabled real-time editing, instant export (PDF/PNG), and social media sharing features for users.

- **GitHub Repository:** [GitHub link](#)
- **Live Demo:** [Live link](#)

REFERENCES

Professional Recommendations | [LinkedIn Link](#)
- Endorsements and written recommendations from collaborators, mentors, and teammates highlighting my technical skills, teamwork, and initiative.
- Available on my LinkedIn profile: [linkedin.com/in/iamharisahsan](#)