

# Muhammad Yasir Ghaffar

## Full Stack Software Engineer

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### EXPERIENCE

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#### Full Stack Engineer

January 2025 – Present

*Freelance*

Remote

- Leading full-stack development projects specializing in modern web technologies with comprehensive AWS integration
- Developed responsive web applications using Next.js and React.js with modern UI/UX principles
- Built serverless solutions with MongoDB and DynamoDB for scalable data management
- Integrated AWS services including Lambda, API Gateway, IoT Core, and CloudWatch for enterprise-grade solutions
- Implemented CI/CD pipelines and GitHub collaboration workflows improving deployment efficiency

#### Full Stack Software Engineer

January 2024 – January 2025

*4Loop Automation*

Hybrid, Faisalabad

- Led development of industrial SCADA systems and automation solutions for 10+ enterprise clients
- Architected Windows applications and Next.js web dashboards for real-time industrial monitoring with 99.8% uptime
- Built real-time data visualization systems with Firebase RTDB serving live updates to industrial users
- Integrated IoT devices using ESP32/ESP8266 and RS485 protocols creating comprehensive sensor networks
- Automated email and Excel reporting systems eliminating manual work and improving operational efficiency

#### MERN Stack Developer Intern

July 2024 – September 2024

*DevLogix Technology*

Remote

- Developed AI-powered HR management platform using MERN stack with machine learning capabilities
- Built intelligent candidate screening with automated skill matching algorithms reducing manual review time
- Optimized MongoDB queries and indexing for improved application performance
- Developed secure JWT authentication system with role-based access control

#### Logistics Executive

2023 – 2024

*NUST Hack Club*

Islamabad, Pakistan

- Coordinated web development workshops and programming competitions across campus
- Collaborated with cross-functional teams to organize tech events and hackathons
- Managed logistics for 10+ technical events facilitating knowledge sharing on modern web technologies

### EDUCATION

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#### National University of Sciences and Technology (NUST)

Islamabad, Pakistan

*Bachelor of Software Engineering (June 2025)*

2021 – 2025

Relevant Coursework: Web & Mobile Development, Full-Stack Programming, Object-Oriented Programming, Data Structures & Algorithms, Cloud Computing, Machine Learning, Software Quality Engineering

## TECHNICAL SKILLS

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**Frontend Development:** React.js, Next.js, TypeScript, JavaScript ES6+, HTML5, CSS3, Tailwind CSS

**Backend Development:** Node.js, Express.js, RESTful APIs, Microservices, AWS Lambda

**Databases:** MongoDB, PostgreSQL, DynamoDB, Redis

**Cloud & DevOps:** AWS (Lambda, DynamoDB, IoT Core), Firebase, Vercel, Git

**Industrial & IoT:** SCADA Systems, Modbus RTU, Real-time Monitoring, IoT Device Management

**Desktop Development:** C# WPF, .NET Framework, Windows Forms

## PROJECTS

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### Tergu Camper Area - Enterprise IoT Camping Platform 2025

- **Technologies:** AWS Serverless (Lambda, DynamoDB, IoT Core), Next.js 15, TypeScript, Tailwind CSS
- Complete camping management platform with real-time IoT device control and automated booking systems
- Implemented intelligent booking engine with dynamic pricing and automated barrier control systems
- Achieved significant reduction in manual operations through serverless automation and real-time device management

### Sadaqat Textile Solar SCADA System 2024

- **Technologies:** WPF Desktop Application, Modbus RTU Communication, Firebase, Next.js Dashboard
- Industrial WPF desktop application reading real-time data from Huawei solar inverters via Modbus RTU protocol
- Implemented serial communication for live energy monitoring with 2-second data collection intervals
- Automated daily production reports with PDF/Excel generation and stakeholder email distribution

### Kamal Textile Energy Management System 2024

- **Technologies:** WPF .NET 8.0, Modbus RTU, Material Design, OxyPlot, SQL Server
- Advanced WPF desktop application for industrial energy monitoring using Modbus RTU communication protocols
- Real-time data acquisition from industrial devices with multi-phase management and comprehensive analytics
- Professional dashboards with efficiency calculations and predictive maintenance capabilities

### Full-Stack Blog Application 2024

- **Technologies:** Next.js 13+, TypeScript, MongoDB, NextAuth.js, Tailwind CSS
- Comprehensive blogging platform with server-side rendering and content management system
- Advanced features including rich text editor, comment system, and multi-author support
- SEO optimization with meta tag management and search engine friendly architecture

### FLUX.1-Schnell AI Image Generator 2024

- **Technologies:** React, Node.js, Hugging Face API, MongoDB, Rate Limiting
- AI-powered image generation platform with advanced prompt processing and gallery management
- Implemented intelligent rate limiting and user management for optimal system performance
- Built professional image generation tool with high-quality output and user-friendly interface

## CERTIFICATIONS

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**Machine Learning Specialization** - Stanford University & DeepLearning.AI February 2024

**Meta Front-End Developer Professional Certificate** - Meta September 2023

**IBM Full Stack Software Developer Professional Certificate** - IBM January 2024

**HackerRank Skills Certifications:** React, JavaScript, Python 2023-2024