

KHALIQ UR RAHMAN

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Summary:

Electrical engineer with 9 years of experience. Expertise in data communication networks, Python programming, cybersecurity protocols, PLC automation, and optical/acoustic communication systems. Designed and implemented IT and industrial control networks. Developed microcontroller and autonomous vehicle projects with C/C++, Java, and Assembly. Strong communication and analytical skills. Seeking to utilize multidisciplinary expertise in data networks, embedded programming, optics/acoustics, and cybersecurity to contribute to advanced engineering projects.

Education:

- **PhD Student (Electrical & Electronic Engineering)** **2023- present**
Robert Gordon University, UK
PhD Topic: Towards secure communication of Underwater Wireless Sensor Networks (UWSNs)
- **Master of Business Administration (MBA)** **2016-2018**
Preston University Kohat, Pakistan
- **Bachelor of Science in Electronic Engineering** **2009- 2013**
Sir Syed University of Engineering & Technology, Karachi, Pakistan

Major Subjects:

Data Communication & Computer Networks, Basic Electrical Engineering, Calculus & Analytical Geometry, Basic Electronics, Differential Equations, Network Analysis, Electronic Devices & Circuits, Linear Algebra, Electromagnetic Theory, Complex Variables & Transforms, Microprocessor & Microcontroller Systems, Instrumentation & Measurements, Signal & Systems, Digital Signal Processing, Probability Methods in Engineering, Communication Systems, Linear Control Systems, Integrated Electronics, Industrial Control Electronics (PLC), Robotics, Wireless & Mobile Communication.

- **Higher Secondary School (Pre- Engineering)** **2007-2008**
Govt Degree College Mingora, Swat, Pakistan
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Licenses & certifications

- **Masterschool's Programming TF101 Python (Programming Language)** **2023**
- **Masterschool's Programming TF101.2 Python (Programming Language)** **2023**
- **Masterschool's Programming TF101.3 Python (Programming Language)** **2023**
- **Google Data Analytics Professional Certificate:**
 - a) Foundations: Data, Data, Everywhere **May 2021**
 - b) Ask Questions to Make Data-Driven Decisions **June 2021**
 - c) Prepare Data for Exploration **August 2021**
 - d) Process Data from Dirty to Clean **October 2021**

Career Summary

- **Electrical Engineer** **2020-2023**
Ghani Rahman Construction Company
- **Site Engineer- Electrical** **2016-2019**
Ghani Rahman Construction Company
- **Network/ Data Engineer** **2013-2016**
Isterlab Consulting

Employment History:

Electrical Engineer

Ghani Rahman Construction Company

January 2020-March 2023

- Preparation and revision of engineering plans, specifications, project schedules, designs, circuit diagrams, and estimates for construction and maintenance of power system.
- Design, Implement and improve electrical designs for building facilities.
- Perform highly specialized design, research, and analysis on a project-by-project basis.
- Determine cable sizing, voltage coordination and protection sequences for power distribution and electrical components in buildings.
- Troubleshooting Electrical and Instrumentation system by wiring and schematic diagram to identify problem and repair system according to specification and established procedure.
- Perform and documents Scheduled and unscheduled maintenance on Electrical Motors, Generators, Transformers, relays, circuit breakers, temperature sensors, pressure sensors.
- Determine procedure for maintenance, installation, modification and repair of electrical systems in building facilities.
- Inspect completed installations to ensure compliance with standard procedures, building codes and electrical designs.
- Plan and schedule projects, estimate time and costs.
- Supervise subordinates, maintain file records and prepare reports.
- Preparation and evaluation of contract documents for tenders.

Site Engineer- Electrical
Ghani Rahman Construction Company

December 2016-December 2019

- Working with high and low voltage equipment; and managing power generation, transmission and distribution.
- Developing electrical equipment and power distribution equipment specifications, as well as preparing electrical load calculations for single and three phase loads.
- Utilizing experience with power system analysis tool to prepare electrical single line drawings, schematics and detail drawings as required.
- Managing and maintaining building services, such as lighting, heating, ventilation and lift systems.
- Overseeing maintenance, testing and repair of company-owned electrical equipment; and reporting issues on time to the managing authorities.

Network/Data Engineer
Isterlab Consulting

June 2013-December 2016

- Providing L3 remote support to OSS team.
- Selecting features, building and optimizing classifiers using machine learning methods.
- Data mining using state-of-the-art methods.
- Extending company's data with third party sources of information when needed.
- Enhancing data collection procedures to include information that is relevant for building analytic systems.
- Processing, cleansing, and verifying the integrity of data used for analysis.
- Providing analytical network support to improve quality and standard work result.
- IT Networks infrastructure designing.
- IT network security.
- Planning, survey and implementation.

Skills:

P Spice, LT Spice, Electronic Work Bench, MultiSim, PLC, SCADA, AutoCAD, Keil uvision, NS2 /NS3, Adobe Photoshop CS5, Office Automation, MS Office 2007, Graphics,

Operating Systems:

Windows XP, Windows 7, 8 & 10, Linux, Ubuntu

Programming Skills & Languages:

C/C++, Java & Assembly, MATLAB, Python

Management Skills

Can work well in team structure.

Excellent Interpersonal and communication skills.

Ability to learn new technologies, to work in pre-defined pressure in organized period of time.

Academic Projects:

Microcontroller based "Autonomous Boat"

2012

Sir Syed University of Engineering & Technology

This project is related to the target based and obstacle avoidance technology which is commonly known as the autonomous system. I have implemented this technology on a Boat. If the desired destination will be feed in it, boat will be capable of reaching its destination using no of gadgets and avoiding all obstacle in its path. Project goal was to achieve such a system in the form of boat that is fully autonomous.

Volunteer Experience / Hobbies & Other Interests:

- Volunteered in local professional and social events and seminars in Network Security, Cyber Security & Power system Engineering
 - Passionate about close-to-home community development projects; social events coordination
 - Table tennis, Cricket, Cycling, Astronomy, Theatre, reading books, Science Fiction Movies, International affairs & economic development issues
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Languages:

- English
 - Urdu
 - Pashto
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