

Saad Ur Rehman

saad.ur.rehman77@gmail.com | +91 977-624-7789

[github](#) | [linkedin](#) | [medium](#)

SUMMARY

A seasoned software developer with expertise in C++ programming, skilled at creating efficient, high-performance solutions for both Linux and Windows platforms, having 4+ years of experience across renowned organizations.

EXPERIENCE

BMW Group

Jan 2023 - Present

Software Developer

Munich, DE

- Software development in C++ 17 as a partner to maintain, improve and upgrade driving simulators.
- Develop and design new features for a large-scale software in C++ 17 on linux.
- Design and write unit tests to ensure code reliability and performance.
- Contribute to architectural design decisions and code reviews to ensure maintainable and scalable codebase.
- Take part in software development life cycle, agile methodologies, and version control systems.

Afiniti

Nov 2022 - Jan 2023

Software Engineer II

Islamabad, PK

- Work as part of the development team for ACDSS backend reporting service.
- Develop and design new features for the service in C++ 17 on Centos 7 linux platform.
- Maintain existing software and fix any new or legacy bugs.

LMKR

Sep 2021 - Nov 2022

Application Designer / Software Engineer

Islamabad, PK

- Worked as part of backend development team for ARIES Petroleum Economics and Reserves Software.
- Developed and maintained new software solutions in C++, Fortran and C#.
- Collaborated in project, from defining technical and user requirements, through to planning, quality and testing.
- Created conceptual architecture and develop solution options that match the clients' requirements.

Bentley Systems

Jul 2019 - Aug 2021

Associate Software Engineer

Islamabad, PK

- Worked as a part of the development team for Bentley's AutoPIPE, which is an advanced software for nuclear piping design and stress analysis.
- Developed and maintained new AutoPIPE features in Fortran 77 and C++.
- Prepared Software Design Specifications for new features.

SKILLS

Programming Languages	C++ C C# Python MATLAB Simulink
Tools & Technologies	CMake C++ STL Git SVN MS Visual Studio Intel Fortran Compiler Gerrit Jira Confluence
Programming Concepts	Object Oriented Programming (OOP) Data Structures and Algorithms Design Patterns
Operating Systems	Linux Windows
Methodologies	Agile Scrum Waterfall

EDUCATION

Bachelors of Mechatronics Engineering

Sep 2015 - Jul 2019

National University of Sciences and Technology (NUST)

Islamabad, PK

NOTABLE PROJECTS

Development of a Low-Cost Building Health Monitoring System

Sep 2018 - Jun 2019

- Developed a tilt sensing system using ARM Cortex M3 (primary controller), NodeMCU (open-source IoT platform), and ADXL-PMDZ-355 (accelerometer). Data was displayed on a web and smartphone interface using Thingier.io.

Air Pollution and Noise Monitoring System Using Raspberry Pi

Apr 2019 - May 2019

- Raspberry Pi 3 B+ was interfaced with gas sensors (MQ-135, MQ-7, MG-811) and Python3 was used to program the system. Data was displayed on a web interface using ThingSpeak.

NERC Indigenous Autonomous Arena-Solving Robot

Sep 2017 - Jul 2018

- Designed and programmed an autonomous robot which could localize itself in a given arena. The robot was able to sense obstacles, place objects, follow walls, and follow lines.

PUBLICATIONS

- **Saad Ur Rehman** et al., "IoT-based Accident Detection and Emergency Alert System for Motorbikes," 2021 International Conference on Artificial Intelligence and Mechatronics Systems (AIMS).