

# SAYAN KARMAKAR

Bengaluru, India

+91 9635531400 ✉ [sayankarmakar10@gmail.com](mailto:sayankarmakar10@gmail.com) [in/sayankarmakar](https://www.linkedin.com/in/sayankarmakar)

## Experience

### Qualcomm - Associate Software Engineer

January 2023 – Present

5G Networking Team - QData (Subpart of the ML Team)

Bangalore, India

- Development of a HTTPS Stack in the HLOS/Client Side to supply ML training data/log packets from device to the server.
- Upgrading the old HTTPS stack from single threaded to multi threaded
- Development, solving the issues and unit testing for various parts of the framework.
- Helping to detect and fix latency issues in the system due to the client by doing stress tests and fixing various parts in the Client Side

### Airbus - Associate Software Engineer

July 2022 – January 2023

Department of Avionics Software and System Testing

Bangalore, India

- Involved in **Software Development Life Cycle (SDLC)**, starting from requirement gathering and performed **Object Oriented Analysis** and Design for development of key interfaces. V Life cycle Development Life cycle has been followed.
- Designed and implemented various classes and methods to increase the performance of the existing software for the **Flight Warning System**.
- Experienced with stand-up, retrospective, demo, planning and code review meetings.
- Created G-sites and custom components for communication and collaboration within Airbus.

## Research Publications

### Low-cost air pollution monitoring device based on air quality index | [🔗 Link](#)

- Tested I/O devices in IoT truck system.
- Worked on particle hardware to collect and transmit sensor data to the cloud.
- Worked with various Mathematical Methods to increase the accuracy of the system.

### Development of an IoT based robust architecture for environmental monitoring using UAV | [🔗 Link](#)

- Finalised the complete architecture and developed design documents for monitoring any areas' various gases using different sensors.
- The Hub's System is made robust and ready to function if Swarm Architecture is implemented.
- Developed and supported web applications to display IoT Sensor data on user interface.

## Technical Skills

**Programming Languages:** C/C++, Python, Java

**Networking Protocols:** HTTPS, UDP, TCP/IP, LTE/NR

**Chain/Configuration Management:** Git, Gerrit, Perforce

**Networking Softwares :** Wireshark, TCPDump

**Development Environment:** VS Code, PyCharm, Anaconda Spyder, Eclipse, Notepad++

**Operating System:** Windows, Unix, Linux, MacOS

## Education

### Jadavpur University

2018 - 2022

B.E.(Hons) in Instrumentation and Electronics Engineering (CGPA of 8.36)

Kolkata, West Bengal, India

### Katwa Bharati Bhawan

2017

WBCHSE (Class XII) (Percentage: 82.20%)

Katwa, West Bengal, India

### Bidhan School

2015

ICSE (Class X) (Percentage: 89%)

Durgapur, West Bengal, India

## Course Works

- Computer Networking
- Artificial Intelligence
- Digital Electronics
- Operating Systems
- Data structures and Algorithms
- Database Management System