Sayan Karmakar

Software Engineer (Avionics) at Airbus

A Software Engineer who wants to change the world ***one bit at a time.*** *Computer Networking Enthusiast. Robotics always excites me. Currently working with Microcontrollers, Microprocessors, Embedded Software, Computer Architecture & Design. Curious about growth & innovation.*

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Work Experience

Airbus - Associate Software Engineer
Department of Avionics Software & System Testing
July 2022 - Present || 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 Projects

Low-cost air pollution monitoring device based on air quality index — https://ssrn.com/abstract=3515043

Proceedings of Industry Interactive Innovations in Science, Engineering & Technology - (I3SET2K19)
January 2020

— *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 — https://ieeexplore.ieee.org/document/9028987

IEEE Indicon 2019 — December 2019

— *Finalised the complete architecture & 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.*

Courses

— ***Computer Networking***
— ***Artificial Intelligence***
— *Digital Electronics*
— *Data Structures and Algorithms*
— *Database Management System (DBMS)*
— *Microprocessors and Microcontrollers.*

Technical Knowledge

Programming Languages
C++/C, Python, Java, ADA, Pascal

Networking
TCP/IP, ARINC, Zigbee, MQTT, Bluetooth

Microcontrollers & Microprocessors
Arduino, Raspberry PI, 80186, 386, 486

Chain/Configuration Management
GIT, VAX/VMS,Pagode, gPM-Sumo

Development Environment
Microsoft VSCode, PyCharm, Anaconda Spyder,Eclipse, Notepad++

Operating System
Windows, Linux, Unix, MacOS

Education

Jadavpur University — B.E. (Hons)
First Class Distinction with Honours (8.36/10)
Instrumentation and Electronics Engineering
Kolkata, West Bengal, India
2018 - 2022

Class 12 — W.B.C.H.S.E.
82.20%
Katwa Bharati Bhaban, West Bengal, India
2017

Class 10 — I.C.S.E.
89%
Bidhan School, Durgapur, West Bengal, India
2015

Languages

English
Full Working Proficiency

Bengali
Full Working Proficiency

Hindi
Professional Working Proficiency