

# CHANDRA SHAKER BOORLA

Hyderabad, Telangana

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## CAREER OBJECTIVE

To be associated with a forward-thinking organization where I can apply my skills, contribute to innovative projects, and grow both professionally and personally while adding value to the company's goals.

## PROFESSIONAL SUMMARY

- Dedicated and efficient embedded software developer having overall 1.6 years of experience in defense sector specializing in radar systems, signal processing, and real-time embedded applications.
- Proficient in tools like STM32CubeIDE, Qt, Microchip Studio, Docklight, Hercules.
- Hands on experience in C, Socket programming.
- Developed GUI applications using Qt for radar data visualization.
- Hands on experience on embedded C programming on STM32 and Atmega micro controllers.
- Possess knowledge on Linux commands, Linux file system and multi-threading.

## SKILL SET

- Languages : C Programming, Embedded C, Python
- Operating Systems : Linux (Ubuntu), Windows
- Communication Protocols : UART, I2C, SPI, Ethernet
- Linux Development tools : Make, Makefile
- Version Control Systems : GITHUB, GIT
- IDEs & Tools: : Eclipse, Visual Studio Code, QT, Code Vision AVR, XILINX(Vitis), VIVADO, Hercules, STM32 cube IDE, Dock light scripting, Microchip studio, Extreme burner.

## PROFESSIONAL EXPERIENCE

### FalconX Electro Technologies Pvt Ltd.,

#### JUNIOR ENGINEER, Hyderabad.

August 2023 – Present

#### Project 1: Radar Data Processing

August 2023 – July 2024

**Overview:** Radar data processing plays a crucial role in modern radar systems, for detecting single and multi-target and extraction of valuable information from raw data in order to detect the Targets

#### RESPONSIBILITY:

- Translated MATLAB algorithms into efficient C programming into structure programming techniques.
- Implemented the signal processing module with Ethernet communication to the RDP (Radar Data Processor).
- Designed and implemented maneuver target tracking (single target) and a multi-target simulator (up to 100 targets) by receiving the position data from the signal processor.
- Plotted dynamic Plan Position Indicator (PPI) and RHI plots for real-time radar data visualization.
- Utilized Ethernet communication protocol for efficient data transfer and synchronization.
- Integrated the complete system into the Qt platform for GUI development.
- Software Requirement Specifications (SRS), Software Design Document (SDD), and Interface Design Document (IDD) detailing system architecture, algorithms, and communication protocols.

#### Project2: Bird Detection Radar (BDR) – GPS Integration & Servo control Development

July 2024 – Nov 2024

**Overview:** The Bird detection radar is designed to detect birds within a 3km range. My contribution focused on GPS integration for accurate location data and the servo control development for extracting azimuth and elevation.

#### RESPONSIBILITY:

- Developed and integrated the GPS module to acquire real-time data including latitude, longitude, roll, pitch, heading, time, and date.
- Integrated and tested the real-time Servo Module, supporting multiple modes: standby, position, slew, and sector.
- Tested and validated various BDR board control functions, ensuring stable and reliable hardware performance.

#### Project 3: Short range tracking system- Radar Controller & Servo Integration

Dec 2024 - Present

**Overview:** The Short-Range Tracking System (SRTS) operates in FM-CW or mixed mode, tracking multiple objects by measuring slant range, angles, velocity, and 3D trajectory. It supports multi-target tracking within a single beam and velocities up to 8000 m/s.

#### RESPONSIBILITY:

- Assisted in Radar Controller frontend development.
- Integrated and tested the servo module with real-time commands.
- Executed and validated standby, slew, point mode, and power-on commands.
- Analysed and visualized radar data plots using existing datasets.
- Authored Interface Design Documents (IDD) detailing system interfaces and protocols.

## **EDUCATION**

- St. Peter's Engineering College, Hyderabad |B. Tech (ECE) |2022 |7.88 %

## **CERTIFICATION**

- Trained as an Embedded Engineer from the institute of IGNITE EMBEDDED SYSTEMS in Hyderabad.