

RACHITHA AVVARU

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PROFESSIONAL SUMMARY

Embedded Engineer with 1.8 years of experience in FPGA/RTL design, embedded software development, and hardware verification under DO-254 standards. Proficient in VHDL, Embedded C, and digital design with hands-on experience in low-level device driver development (GPIO, UART, SPI, Timers, CAN) on ARM Cortex platforms. Skilled in communication protocols (UART, SPI, CAN, MIL-STD-1553B), system debugging, performance optimization, and real-time application development. Experienced in simulation, synthesis, and linting using tools like QuestaSim and ALINT-PRO. Strong collaborator with a track record of delivering high-reliability aerospace solutions within strict timelines.

EDUCATION

Bachelor of Technology (B. Tech) – Electronics and Communication Engineering

Annamacharya Institute of Technology and Sciences,

Kadapa 2019 – 2023 | CGPA: 7.26

Intermediate (MPC)

Narayana Junior College, Kadapa

2017 – 2019 | CGPA: 7.21

S.S.C

Narayana High School,

Kadapa 2017 | CGPA: 9.0

EXPERIENCE

Samniya Avionics Techsys Pvt. Ltd., Bangalore

February 2024 – October 2025

Position: Embedded Engineer

Project: Integrated Flight Control Computer (IFCC)

- Designed and tested low-level drivers (GPIO, SPI, UART, Timers, CAN) on ARM Cortex platforms.
- Created DO-254-compliant documentation with requirements traceability, verification reports, and coverage analysis.
- Collaborated with teams for hardware-software integration in safety-critical systems.
- Performed debugging and root cause analysis to fix technical issues.
- Optimized code to reduce latency and improve performance.
- Released stable software updates and patches.

TECHNICAL SKILLS

- Programming Languages: C, Embedded C, VHDL
- Communication Protocols: UART, SPI, I2C, CAN
- Tools: Quest-Sim, Alint-Pro

CERTIFICATIONS

DECLARATION

I hereby declare that the information provided above is true and correct to the best of my knowledge and belief.