

# Pushpkant Yadav

**System Architect – Embedded Systems & Digital Twin / Virtual Platforms**

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**Architecting digital twins of complex avionics LRUs for early hardware–software co-design, validation, and system bring-up.**

## Professional Summary

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System Architect with 13+ years of experience designing and validating complex embedded systems, with a strong focus on digital twins and virtual platforms for avionics LRUs. Experienced in architecting QEMU-based MPSoC system models to support early software development, driver validation, and system bring-up ahead of hardware availability. Deep hands-on background in Embedded Linux, Zynq UltraScale+ MPSoC architecture, hardware–software co-design, and system-level debugging. Actively drives architectural PoCs, resolves high-impact technical risks, and mentors engineers across disciplines.

## Core Skills

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### System Architecture & Domain

- Embedded System Architect
- Digital Twin & Virtual Platform Design
- Avionics LRU Systems
- Hardware-Software Co-Design
- Real-time & Safety Critical Systems

### Simulation & Modelling

- QEMU (Board and Peripheral Modelling)
- Virtual Prototyping
- System Level Modelling (UML)
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