

To secure a Principal / Senior Software Engineer or Systems Architect role focused on architecting scalable distributed, embedded, and storage platforms, driving protocol-level and system-wide engineering excellence and shaping long-term platform strategy across high-impact, mission-critical products.

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CORE COMPETENCIES

- Distributed Systems Architecture & Platform Design
- Domain-Driven Design (DDD) & Bounded Context Modeling
- Storage Systems Engineering & Validation Platforms
- Embedded Systems & Firmware Integration
- Protocol-Level Software Development
- High-Reliability Enterprise Data Migration Systems
- Cross-Layer System Integration (Hardware-Firmware-Software)
- Large-Scale Validation & Test Automation Architecture
- Microservices & Service-Oriented Architecture (SOA)
- Applied Machine Learning Systems

IT SKILLS

- **Systems & Architecture:** Distributed Systems, Domain-Driven Design (DDD), Microservices Architecture, System Design
- **Programming Languages:** C++, Python, C
- **Frameworks & Libraries:** Pytest, Transformers (Model Definition), Scikit-learn, PyTorch, Qt
- **Protocols & Low-Level Systems:** SCSI, NVMe, USB
- **DevOps & Engineering Tooling:** CI/CD Pipelines, Jenkins, Kubernetes, REST, SOAP, Visual Studio Code
- **Technical Leadership:** Technical Mentorship, Cross-Team Design Reviews, Stakeholder Alignment

NAGA VENKATA SAI SRUJAN BOTLAGUDURU

PROFILE SUMMARY

- **Principal / Senior Software Engineer** with **10+ years of experience** designing and delivering **large-scale distributed, embedded & storage systems** across semiconductor, aerospace, travel, and telecom industries.
- Proven expertise in **designing complex platforms** using **Domain-Driven Design, micro services and protocol-level engineering**, driving scalable, maintainable systems across hardware-software boundaries.
- Deep specialization in **storage systems and validation engineering**, with basic exposure of **SCSI, NVMe, and USB-based platforms** and measurable impact on product roadmaps and release velocity.
- Extensive experience building **high-reliability enterprise systems**, including **mission-critical airline data migration platforms** and embedded firmware solutions for aviation and surveillance systems.
- Recognized for **technical leadership at scale**, influencing platform architecture, validation strategy, and cross-team engineering standards across global organizations.

WORK EXPERIENCE

Principal Engineer | SanDisk, Bangalore | Nov 2024 – Aug 2025

- Designed **four-layer storage validation platform** using **Domain-Driven Design** with event storming & bounded contexts, improving accuracy across flash storage domains.
- Built multi-layer USB-Apple communication stack in **Python and C++**, enabling non-native USB communication via CiDER and CP210 & improving serialized throughput by **~60%**.
- Performed **architecture analysis across 10+ flash services** spanning **SCSI and NVMe**, unblocking **30+ validation bottlenecks**.
- Influenced **~30% of the validation roadmap** through protocol-level analysis and architectural recommendations for next-generation storage platforms.
- Defined **architectural standards and design patterns** for validation frameworks to improve consistency across multiple teams and codebases.

Additional Responsibilities:

- Defined validation architecture strategy for next-generation flash storage platforms, aligning protocol evolution (NVMe/SCSI) with tooling scalability and automation needs.
- Served as technical authority for storage validation systems, reviewing design proposals, protocol implementations, and cross-team integration changes.
- Led cross-functional design reviews involving firmware, hardware, and system teams to ensure end-to-end validation coverage across storage subsystems.
- Drove standardization of validation APIs and interfaces across multiple internal tools, reducing duplication and improving platform interoperability.
- Mentored senior and mid-level engineers on storage protocols, system design, and framework architecture, raising the overall technical bar of the validation organization.

PREVIOUS WORK EXPERIENCE

Amadeus, Bangalore / London

Software Development Engineer III | Jan 2022 – Sep 2024

- Led **large-scale data migration initiatives** for **four global airlines**, developing **Python-based migration tooling** to meet airline-specific requirements, improving error handling by **5%** and reducing operational downtime by **70%**.
- Enhanced migration workflows across **two enterprise systems** using **Python and C++**, applying established design patterns (e.g., Singleton, Facade) and validating changes through **Node.js desktop applications**, supporting **two security audits**.

PROJECTS

System Design Masterclass — Cab Sharing System | Open Source Contribution

Try A Template — Pictorial Representation of CS Concepts | Custom Project

AI Explorer — A desktop application that illustrates AI Concepts | Custom Project

PERSONAL DETAILS

- **D.O.B.:** 24th December 1992
- **Languages:** English, Telugu and Basic Hindi

Honeywell, Bangalore / Hyderabad

Embedded Engineer II / Software Engineer II / Software Engineer | Jan 2018 - Dec 2021

- Integrated **15 middleware services** (including **5 client-specific SOAP services**) in **C++** across **three surveillance camera models**, enabling firmware delivery for **five customers**.
- Enhanced an **aircraft data loader application** in **C++**, adding **40 bench tests**, resolving **200+ Jira issues**, and supporting **80 production deliveries** across **four customers**, improving aircraft data loading performance by **60%**.
- Applied **object-oriented design principles** and implemented multiple **design and architectural patterns** (Abstract Factory, MVC, multi-layered architecture) across embedded and desktop applications.

TCS, Hyderabad

Software Engineer | Feb 2017 - Dec 2017

- Customized telecom-billing systems to **support 4-5 client-specific requirements**, delivering four enterprise projects within scheduled timelines for large telecom customers.

MagnaQuest

Software Engineer | Jun 2015 - Feb 2017

- Developed **standalone Windows applications** implementing **certificate-based cryptographic operations**, serving as internal reference implementations.
- Ported **proprietary cryptographic libraries** from **Windows to Linux**, enabling **six cryptographic operations** on the Linux platform under a monolithic architecture.
- Designed a **Qt-based MVP user interface** to read and visualize **smart card data**, presenting results to internal teams and client stakeholders.