Naga Venkata Sai Srujan Botlaguduru

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Summary:

Principal Engineer with **10+** years of experience building and validating large-scale distributed systems across storage, aerospace, travel, and telecom. Proven at architecting scalable validation frameworks, improving engineering efficiency (up to 40%), and leading cross-functional teams to deliver 130+ enterprise releases at SanDisk, Amadeus, and Honeywell.

Skills:

Systems & Architecture: Distributed Systems, Domain-Driven-Design, Microservices, System-Design, Cloud Computing (Azure)

Core Languages & Frameworks: Python, C++, C, Pytest, TypeScript(exposure), Transformers(Model Definition), Scikit-learn & Torch (ML/DL), Qt (GUI), Flask

Protocols & Low-Level Systems: SCSI, USB

API Interfaces: REST, OpenAI, OpenRouter, Opik

AI Models: Xioami, Nvdia, deepseek

DevOps & Tooling: CI/CD, Jenkins, Kubernetes, SOAP, Visual Studio Code, draw.io

Leadership: Technical Mentoring, Cross-team workflow Reviews, Stakeholder Alignment

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Professional Experience:

SanDisk   **Bangalore**

Principal Engineer   **Nov 2024 - Aug 2025**

- Reconstructed a **4**-layer **data** storage validation workflow using **Domain-Driven Design** (event storming, bounded context), reducing cognitive load for new engineers and improving validation accuracy, contributing to a **5%** faster onboarding and iterative cycle.
- Directed & engineered USB-Apple powered communication API flow of multi-layered code using Python and C++, enabling non-native USB communications to Apple devices using **2** mediums such as CiDER and CP210 boards, serialising communications by **60%**.
- Led platform-wide analysis of **10+** flash domain services across SCSI and NVMe, unblocking **30+** validation bottlenecks and influencing **~30%** of the product roadmap.

Amadeus   **Bangalore, London**

Software Development Engineer 3   **Jan 2022 - Sep 2024**

- Spearheaded **data migration** for **4** global airlines, introducing Python scripts to meet airline-specific requirements, improving migration error handling by **5%,** and reducing downtime by **70%**.
- Evolved as a full-stack engineer, enhancing the migration project in **2** systems using Python and C++, identifying **2** patterns such as singleton, facade, etc., validating relevant changes using **2 NodeJS** desktop applications, covering **2** security audits.

Honeywell   **Bangalore, Hyderabad**

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

- Incorporated **15** middleware **data services** (including **5** client-specific services using SOAP) for **3** types of surveillance camera models in C++, coordinating with **2** cross-functional (offsite & onsite) teams, maintaining scalability, resulting in first-class camera firmware delivery for **5 customers**.
- Enhanced a **4**-tabbed aircraft **data** loader **GUI** application in C++ with **40** bench tests, resolving **200** Jira stories/issues, supporting **80** subsequent deliveries to **4 customers**, and improving **data** loading on aircraft systems by **60%**.
- Leveraged object-oriented programming skills, adhering to **5** coding principles, following **3** design and **1** architectural patterns, such as abstract factory, MVC, multi-layered architecture, etc.

Tata Consultancy & Services   **Hyderabad**

Software Engineer   **Feb 2017 - Dec 2017**

- Customised Billing System for **4-5 client-specific** needs, ensuring smooth operations for enterprise telecom **customers**, delivering **4** projects on time.

MagnaQuest   **Hyderabad**

Software Engineer   **Jun 2015 - Feb 2017**

- Implemented **2-3** standalone Windows applications, creating certificates to perform **3** cryptographic operations for a **customer**.
- Ported library code to the Linux platform, following a monolithic architecture, enabling **6** cryptographic operations for a standard **customer**.
- Explored and designed a **UI**, reading **3** types of smart card information for representing results **graphically** to a team of **15-20**, and then to a **client**.

Contributions & Projects:

- Contributed to a 1K+ starred System-Design-Masterclass open source repository with Cab Sharing System Design.
- AI Explorer — A desktop application that illustrates AI Concepts, Try A Template — A graphical representation of CS Concepts | Custom Projects
- Led an AI agent project as part of an international AI Hackathon contest.

Recognition & Impact:

- Multiple engineering excellence awards across Amadeus, Honeywell, and TCS for system reliability, delivery ownership, and cross-team leadership.

Education:

Jawaharlal Nehru Technological University, Bachelor's in Computer Science   **June 2009 - April 2013**