

Tejasvi Nuthalapati

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SKILLS SUMMARY

- **AI Systems:** RAG Pipelines, LLM Orchestration, AI Agents, Prompt Engineering, Retrieval Optimization, Model Evaluation, MCP
- **GenAI Frameworks:** LangChain, LangGraph, CrewAI, vLLM
- **Languages:** Java, Python, TypeScript, SQL, Scala, C/C++
- **Backend:** Distributed Systems, Microservices, REST APIs, Event-Driven Architecture
- **Data:** Data Modeling, ETL Pipelines, Redshift, DynamoDB
- **Cloud/Infra:** AWS (S3, Lambda, ECS, IAM, KMS, Bedrock), GCP, Docker, Kubernetes
- **Tools:** Git, Linux, PostgreSQL, MySQL

EXPERIENCE

- **Amazon** Austin
Software Engineer *July 2018 - Present*
 - **Content Discovery:** Architected an enterprise GenAI knowledge hub using RAG-based retrieval across wikis, Slack, Jira, and codebases, reducing MTTR by 35% and enabling 2K+ engineers to retrieve permission-aware answers with sub-2s latency.
 - **Orchestration:** Developed AryaBot, a GenAI Slack assistant leveraging schema-aware SQL generation and RAG workflows, automating 40% of ad-hoc queries and reducing manual analytics effort by 30% across 100+ datasets.
 - **Transformation:** Led integration of the Japanese Government e-Procurement System with Amazon Business, launched March 2025 with projected \$333.6MM 3-year OPS.
 - **Scalability:** Designed and deployed multi-tenant AWS infrastructure for industrial data ingestion using S3 and Redshift Datashares, supporting high-volume telemetry for a \$240B enterprise client (design patent pending).
 - **Deployment:** Re-architected Amazon WebView to support adaptive bitrate streaming, leading global rollout across 20+ Fire TV devices with 0 critical security defects.
 - **Integration:** Built voice-enabled video playback modules for Hulu and NBC on Echo Show, enabling DRM-secured, Alexa-controlled streaming experiences.
- **Expedia** Seattle
Software Engineer *Feb 2015 - July 2018*
 - **System Optimization:** Architected GDS contract APIs for global airline content that reduced downstream traffic by 40%, significantly decreasing operational costs and enhancing system efficiency across international markets (FR, SG, KR, ID, PH)
 - **Service Reliability:** Engineered high-availability Provider Adapter APIs (RollbackPurchase, PNR Remarks) and established a CI/CD pipeline reducing mainline-to-production deployment time to 45 minutes with integrated Splunk/Seyren monitoring.
 - **Operational Agility:** Developed administrative tools for real-time carrier blacklisting, enabling analysts to execute production rule changes with a 3-second propagation time, while providing on-call support within a Follow-the-Sun (FTS) model.
- **Amazon** Sunnyvale
Software Engineer - Intern *May-August 2015*
 - **Compliance:** Built an automated diagnostic reporting engine to monitor Kindle SLA adherence, integrating JIRA APIs to generate cross-team performance insights

PATENTS AND AWARDS

- **Patent(Pending) Id: 86162955, Appl. No: 18/622,172:** Representation and Management of Industrial Data in Relational Datastore, March, 2024
- **Expedia's Horizon Award:** Awarded to Expedia's top 1% performers to recognize high performance and long term potential, Y2017

RESEARCH

- **Publication: Designing with AI, Not Around It—Human-Centric Architecture in the Age of Intelligence:**
Journal: Journal of Computer Science and Technology Studies — DOI: <https://doi.org/10.32996/jcsts.2025.7.4.19>
- **Publication: Reimagining Public Services – Cloud Infrastructure as the Backbone of Modern Governance:**
Journal: European Journal of Computer Science and Information Technology — DOI: <https://doi.org/10.37745/ejcsit.2013>

EDUCATION

- **The University of Texas at Dallas** Dallas, TX
Master of Science - Computer Science *Dec 2015*
- **Jawaharlal Nehru Technological University** Hyderabad, India
Bachelor of Technology - Computer Science *Aug 2013*