

Jayasri Guthula

Los Angeles, California | [Portfolio](#) | [LinkedIn](#) | [GitHub](#) | [Google Scholar](#)

Summary

Creative technologist, XR developer, product developer, and prototype-driven software engineer with an **'I can build it'** mindset. Turns spatial computing, AR, VR, human-centered AI, LLM agents, privacy-preserving telemetry, and game-like interfaces into useful products people can touch, question, and remember. Work spans **seven publications across IEEE and HCI venues, two hackathon wins**, open-source prototypes, community leadership, and developer education. Built research people can play with, reduced reported VR telemetry re-identification risk from **100% to 0.04%**, and reached **3,000+** academic and industry participants through demos, workshops, and outreach.

Experience

Software Engineer Trainee - TechMantra Now LLC

Los Angeles / Remote | Jun 2026 - Present

- Develop and validate enterprise web-application workflows supporting PR and SMTR operations, translating functional requirements into tested product behavior.
- Perform requirements analysis, functional testing, defect validation, regression checks, and release-readiness reviews across business-critical flows.
- Collaborate with distributed engineering and business stakeholders to clarify scope, validate fixes, and improve reliability before production release.

AI Reviewer - LLM Evaluation & Agent Systems - Handshake AI

San Francisco, California | Jun 2025 - Jul 2026

- Improved evaluation quality for production-facing LLM and agent systems by designing structured tests for reasoning, safety, hallucinations, bias, and multi-step task completion.
- Exposed failure modes closer to real use by creating multimodal evaluations across text, images, structured data, retrieval, context retention, and agent execution.
- Converted model behavior into concise, actionable recommendations for AI engineers and researchers through repeatable evaluation reports and prompt experiments.

AI/ML Engineer | Core Team Member - BIOCOM Technologies

Remote | Sep 2025 - Jun 2026

- Enabled hands-free XR onboarding and control by prototyping low-latency LLM voice agents that responded to voice, gaze, motion, and contextual signals.
- Unified EEG, EMG, PPG, gaze, and spatial telemetry into multimodal pipelines for real-time physiological interpretation and adaptive immersive feedback.
- Made device APIs and research easier to explore by shaping a developer portal with documentation, contributor workflows, and live XR analytics dashboards.

Growth Intern | Product & Community Strategy - FLAIRE

Remote | Sep 2025

- Generated **35+ organic referrals without paid marketing** through campus events, travel booths, community outreach, and product conversations.
- Produced travel storytelling with **4,000+ LinkedIn impressions**, then translated sign-up behavior and user feedback into onboarding and collaborative-planning recommendations.

Graduate Research Assistant - Emerging Analytics Center, University of Arkansas at Little Rock

Little Rock, Arkansas | Jan 2023 - May 2025

- Reduced reported VR telemetry re-identification risk from **100% to 0.04%** by combining WGAN-GP synthetic data, differential privacy, and CKKS encrypted analytics.
- Cut behavioral-analysis and debugging time by approximately **70%** by building real-time ELK dashboards over **2M+** head, hand, gaze, and motion events.
- Published and presented privacy, gaze, spatial-behavior, equity, and embodied-sensing research across IEEE and HCI venues, posters, workshops, and public demonstrations.
- Reached **3,000+** academic and industry participants through XR demos, Unity workshops, summer camps, conference sessions, and community outreach.

Software Engineer - Infosys Ltd.

Bangalore, India | Aug 2021 - Jan 2023

- Reduced API latency by approximately **60%** by restructuring queries, indexing MongoDB data, and introducing caching across Java, Spring Boot, Python, and Flask services.
- Shortened QA cycles by approximately **40%** by building Jenkins and Bitbucket CI/CD pipelines with automated API validation through Postman and PyTest.
- Improved UI responsiveness by approximately **50%** and strengthened access control through focused frontend optimization, JWT authentication, and role-based permissions.

Co-Founder | Brand & Digital Strategy - Maanvi Boutique

India / Remote | 2016 - Present

- Tripled online customer inquiries by combining a simplified 2025 brand redesign with SEO, Google Ads, product storytelling, and campaign analytics.
- Reduced printing complexity and cost by redesigning a color-heavy family identity into a scalable monochrome Telugu emblem for bags, billboards, web, and social media.

Selected Projects

SIGGRAPH Pixel Planner | Next.js, TypeScript, React

- Shipped an attendee planning app in half a day, two days before SIGGRAPH, and supported 500+ users with schedules, 3D maps, indoor routing, live location, food, and bathroom discovery.

NetworkXR | Android XR, Unity, React

- Created a privacy-aware smart-glasses networking experience that won 1st Place at the Google Android XR Hackathon / Build for XREAL Project Aura.

Janu XR | FastAPI, Android XR, Gemini, Unity

- Built an eight-step AI-assisted XR onboarding system with session analytics, replay, and contextual guidance for fit, calibration, and gesture friction.

Research Publications

2026 | Biener, V., Pavanatto, L., Lu, F., Dubinsky, Y., Shlomy, M., **Guthula, J. S. N.**, Basu, A., Skarbez, R., Stoakley, R., Schmalstieg, D., Grubert, J., & Bowman, D. A. [XR for knowledge work: Ten challenges](https://doi.org/10.1109/MCG.2026.3702793). *IEEE Computer Graphics and Applications*. <https://doi.org/10.1109/MCG.2026.3702793>

2025 | Guthula, M. S., **Guthula, J. S. N.**, & Sai Chandana, B. [A comparative study on supervised learning for activity recognition in wireless body area networks](#). *2025 IEEE International Conference on Sensor Networks and Signal Processing (SENNET)*, 1-6.

- 2025 | Sunny, M. J. M., **Guthula, J. S. N.**, Kharel, A., Shraboni, M. N., Rashid, H., Bhandari, P., Springer, J. P., & Basu, A. [Gaze insights in XR: Real-time eye-tracking analytics with Elasticsearch](#). *2025 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*. <https://doi.org/10.1109/VRW66409.2025.00028>
- 2025 | **Guthula, J. S. N.**, Rashid, H., Springer, J. P., & Basu, A. [Preserving privacy in VR telemetry data](#). *2025 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, 1270-1271.
- 2024 | **Guthula, J. S. N.**, & Basu, A. [Navigating gender biases in XR: Towards equitable technological future](#). *2024 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, 326-329. <https://doi.org/10.1109/VRW62533.2024.00065>
- 2023 | Basu, A., Sunny, M. J. M., & **Guthula, J. S. N.** [Privacy concerns from variances in spatial navigability in VR](#). *arXiv*. <https://doi.org/10.48550/arXiv.2302.02525>
- 2021 | Sultana, A. M., Saherabegum, A., Umma, A., & Guthula, J. S. N. Music recommendation application based on facial expressions. *International Journal of Innovative Research in Information Security (IJIRIS)*, 8(2), 15-19.

Community, Talks & Professional Service

- **Talks and presentations:** GatherVerse speaker; XRCC session; IEEE VR workshop presentations in **2023, 2024, and 2025**; IEEE VR 2025 poster presentation.
- **Mentoring:** Mentor at MIT Reality Hack and XRCC; supported builders through project framing, prototyping, and technical feedback.
- **Reviewing:** Reviewer for **ACM SAP 2025**.
- **Leadership:** Head Girl in high school; She Codes Chair at ALIET; ACM Chapter Vice Chair at UA Little Rock.
- **Conference service:** SIGGRAPH Student Volunteer Team Leader in **2024 and 2026**; SIGGRAPH Student Volunteer in **2023**; IEEE VR Student Volunteer in **2024 and 2025**; AWE Super-Star Volunteer in **2025**.

Awards

- **1st Place**, Google Android XR Hackathon / Build for XREAL Project Aura, for NetworkXR; featured in Unity's official hackathon recap.
- 1st Place, Lovable Hackathon.
- **1st Place**, 2025 Mainstream Research & Creative Works Expo, for Preserving Privacy in VR Telemetry Data.
- **Graduate Research Excellence Award**, University of Arkansas at Little Rock.

Licenses & Certifications

- **Jun 2025 | Udemy**: Machine Learning (Python), ID UC-628f1ec0-424b-4154-ad0f-7119cfd5dec9; Signal Processing (Python), ID UC-b9a2e226-d1af-44a0-b2e7-7e0c8b01e00c.
- **May 2023 | NVIDIA**: Deep Learning, ID ac821 967c6f846a990 773c3d922 355a3.
- **Oct 2022 | Infosys**: Certified Python Associate.
- **May 2022 | Infosys**: Certified Spring REST Professional.
- **Jun 2020 | Infosys**: Certified Software Programmer.
- **Jun 2020 | Google Digital Garage**: Fundamentals of Digital Marketing, ID RUF 32N QM7.
- **Oct 2018 | NPTEL**: Python Programming, ID NPTEL18CS35S22 141 241.
- **Udemy**: Data Science and Deep Learning with Python, ID UC-4e7d783b-e04f-4f2d-b8de-6ad418a91cf3.
- **CITI Program**: Responsible Conduct of Research for Engineers, ID 61 048 867; Social and Behavioral Responsible Conduct of Research, ID 61 134 431.

Technical Skills

- **XR and spatial computing**: Unity, C#, Android XR, XREAL Aura, PICO 4 Ultra, Snap Spectacles, Lens Studio, OpenXR, MRTK, HoloLens, HTC Vive, Apple Vision Pro, gaze and gesture interaction, spatial anchors.
- **AI, data, and privacy**: Python, PyTorch, TensorFlow, scikit-learn, LLM agents, RAG, model evaluation, agentic coding workflows, prompt engineering, WGAN-GP, differential privacy, CKKS, homomorphic encryption, synthetic data, ELK Stack.
- **Product and software**: TypeScript, JavaScript, React, Next.js, Node.js, FastAPI, Flask, Hono, Java, Spring Boot, REST APIs, SQL, MongoDB, Docker, CI/CD, GitHub Actions, Jenkins, Postman, PyTest.
- **Creative technology**: Phaser, Reddit Devvit, Canvas, WebGL, Figma, product design, rapid prototyping, technical storytelling, workshops, public speaking, developer education, community building.

Education

- **Stanford University, School of Engineering** - Machine Learning, Professional Education, Summer 2026.
- **University of Arkansas at Little Rock** - M.S. Computer Science, 2023-2025. Thesis: [Secure Frameworks for User Motion Data in VR](#).