

Tarun S. Pandit

Founder and Product Builder

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Profile

Founder and product builder creating original technology and complete products across audio hardware, machine learning, developer platforms, and customer workflows. Own model development, product design, full-stack engineering, deployment, and operation. Solely designed, developed, deployed, and managed the linked personal, company, and product websites.

Company Experience

YourLeadAI

Co-Founder and CEO

January 2024 – Present

yourleadai.com ↗

- Co-founded and built a customer workflow product spanning FAQ handling, qualification, CRM updates, follow-ups, lead routing, calendar integration, booking, and AI chatbots, with human review.
- Worked directly with clients to assess business needs, map workflows, define requirements, and shape tailored solutions.
- Led iterative client delivery from technical scoping and integrations through deployment, testing, and troubleshooting; gathered feedback, refined workflows, and followed through with ongoing support.

Flow7

Umbrella for owned companies and products

Founder

April 2024 – Present

aaro

Immersive Audio
Hardware and Software

aaro.flow7.org ↗

- Designed and engineered aaro one, a 16-driver immersive active-speaker system, across hardware architecture, audio software, acoustic modeling, and product design. Physical speaker development and qualification are ongoing.
- Developed immersive-audio software spanning real-time source extraction and processing, 3D object-metadata mapping, multichannel rendering, and beamforming pipelines.
- Built per-driver digital signal processing and room-correction workflows connecting acoustic measurements, calibration, filter generation, and source-aware rendering for multi-speaker listening environments.
- Implemented sensor-fusion and listener-tracking logic to adapt spatial rendering to listener positions, with telemetry freshness checks, uncertainty handling, privacy controls, and fallback behavior.
- Developed speaker communication and multi-node coordination logic covering node state, calibration, timestamped audio, clock alignment, and recovery.
- Created acoustic and mechanical models and interactive 3D engineering tools to evaluate speaker geometry, signal paths, and system behavior through simulations and software tests.
- Created lmersa, an original Rust runtime and local control platform in the broader audio and smart-home ecosystem. Integration with aaro is planned.
- Solely designed, developed, deployed, and managed the aaro website, including frontend and backend development.

StemsAI

Audio Separation
Models and Product

stemsai.flow7.org ↗

- Created the audio separation models and complete product for turning mixed recordings into editable vocal and instrument tracks. Own model development, training, evaluation, software architecture, product design, and production delivery.
- Developed model-development workflows for audio data preparation and augmentation, training and checkpoint management, reconstruction evaluation, and full-recording inference, including spectral processing and per-stem diagnostics.
- Built the full-stack audio workspace from upload and processing to synchronized multitrack playback, waveform inspection, solo/mute controls, and individual or bundled stem exports. Engineered job orchestration, progress tracking, and secure output delivery using React, TypeScript, Next.js, and Python.
- Operate the customer-facing product across releases, testing, and support; translate user needs into prioritized improvements. Implemented subscriptions, credit billing, entitlement checks, and usage controls for paid access and inference resources.
- Solely designed, developed, deployed, and managed the StemsAI website, including frontend and backend development.

Infer

Inference Platform

infer.flow7.org ↗

- Designed and built a developer platform exposing multiple models through OpenAI-compatible APIs and streaming responses. Implemented routing that checks model capabilities, context and output limits, provider health, and privacy requirements before dispatch.
- Engineered account and spending controls with scoped API keys, daily and monthly budgets, credit reservations, and usage-based settlement receipts, giving applications controls to limit and audit inference spending.
- Built request replay and idempotent billing, with guarded provider fallback that avoids automatic retries after ambiguous failures. Retained completed responses can be replayed without another provider call or credit reservation, while uncertain upstream outcomes remain explicit.

Sona

Real-Time
Whale Localization

sona.flow7.org ↗

- Building Sona, software that locates whales in real time from networks of low-cost acoustic sensors, starting with the North Atlantic right whale. Slow zones can then be centered on the whale instead of on the recorder that heard it.
- Own the machine learning, software, and product, from the call detector to the service that sends zones to ships.
- Solely designed, developed, deployed, and managed the Sona website, including frontend and backend development.

Professional Experience

NeoBioLinus Inc.

Pennsylvania

neobiolinus.com ↗

- Diagnosed and resolved hardware, software, and network connectivity issues; assisted with the installation and configuration of computer systems and applications.
- Maintained work records and technical documentation and collaborated with colleagues on internal support and process improvements.
- Configured a UniFi UXG Pro gateway, Mellanox switches, Wi-Fi 7 access points, and UniFi Protect cameras. Documented network topology, provisioning, and configuration standards.
- Solely designed, developed, deployed, and managed the NeoBioLinus website, including frontend and backend development.

Additional Company

GoodTwin Music and Artist Services goodtwin.flow7.org ↗	• Solely designed, developed, deployed, and managed the GoodTwin website, including frontend and backend development. • Provide general consulting to GoodTwin alongside hands-on website engineering and management.
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Education

Western Governors University	B.S. Information Technology	Expected Spring 2027
George Mason University Fairfax, VA	B.S. Computational and Data Sciences	Expected 2028

Certification

ITIL 4 Foundation

Skills

Product and operations	product design, client needs assessment, requirements gathering, workflow mapping, iterative delivery, prioritization, documentation, implementation support, troubleshooting, customer communication
Machine learning and AI	original AI model development, deep learning, model design and architecture, training and evaluation, checkpoint management, inference pipelines, PyTorch
Audio ML and signal processing	audio source separation, dataset preparation and augmentation, STFT/spectral processing, reconstruction and per-stem evaluation, SI-SDR/SNR diagnostics
Immersive audio engineering	beamforming, sensor fusion, room correction, real-time audio processing, 3D object-metadata mapping, multichannel rendering, speaker coordination, acoustic modeling
Full-stack engineering	frontend and backend development, software architecture, authentication, APIs, webhooks, asynchronous jobs, CRM and calendar integrations, billing and entitlement flows
Primary technology	Python, TypeScript, JavaScript, Rust, SQL, React, Next.js, Node.js, REST APIs
Additional languages	C#, Dart, Java, Kotlin, Go, Swift, Ruby, HTML/CSS, Objective-C, MATLAB, R
Application development	Flutter, .NET MAUI, React Native; API and CRM integrations
Systems and delivery	PostgreSQL, SQLite, Docker, Cloudflare, Git, OpenAPI, automated testing, Playwright, Vitest, Windows, macOS, Linux
Cloud foundations	AWS, Google Cloud/Vertex AI, Azure
Networking	UniFi, routing and switching fundamentals, network segmentation, security fundamentals

Languages

English (native), Spanish (advanced), Korean (proficient), Swedish (intermediate)
