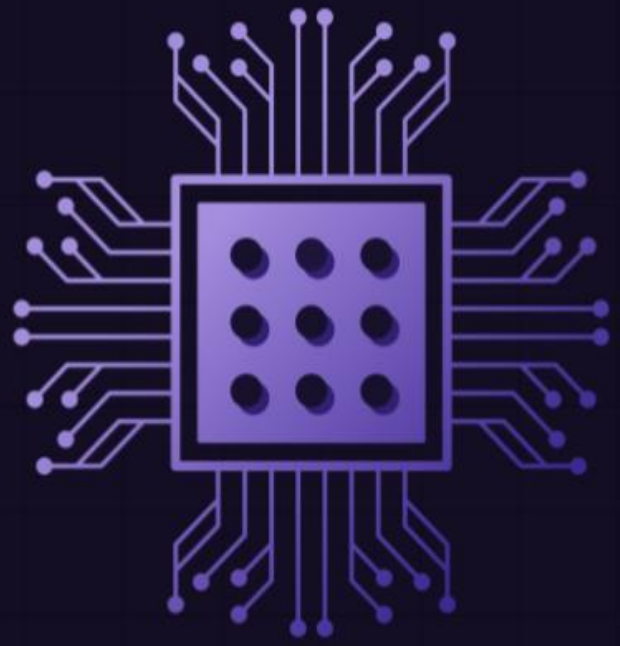


SYVORA

ACCELERATING
EMBEDDED INTELLIGENCE

YC Spring 2025 Application

Syvora Team

Feb 2025

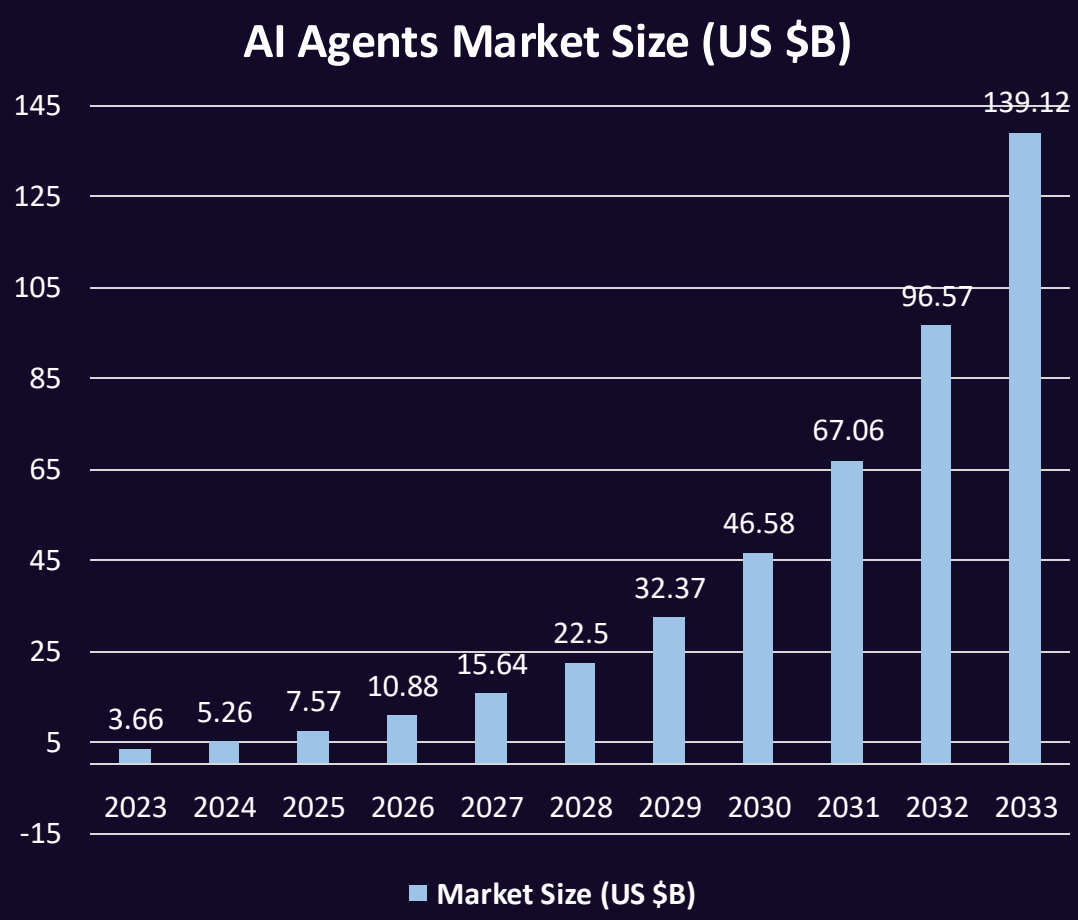
Problem Statement

- Despite advancements in AI, most devices and appliances remain unintelligent, relying on cloud connectivity for even basic tasks. This leads to:
- **Latency & Connectivity Issues** – Devices depend on the internet for AI processing, making them unreliable in low-connectivity environments.
- **High Costs & Privacy Concerns** – Cloud-based AI incurs ongoing expenses and raises data security risks.
- **Limited Adaptability** – Existing AI solutions lack on-device learning, making them rigid and unable to adapt to user behavior and specific use cases.
- There is a growing need for **AI-native, edge-intelligent devices** that can operate autonomously, efficiently, and securely across industries.

**** UN Issue Note, 09/24, Artificial Intelligence (AI) end-to-end: "The Environmental Impact of the Full AI Lifecycle Needs to be Comprehensively Assessed"***

AI Agents slated for exponential growth

- AI Agents Market expected to grow from **US $3.66B** in 2023 to around US **$139.12B** in 2033 at a CAGR of **43.88%**
- **Ready-to-deploy agents** had dominant market-share in 2023 with **69.19%** of the market
- These agents expected to increase global GDP by **26% by 2030**



Source: Market.us, Dec 2024

Environmental Concerns with AI Proliferation*

- E-waste
  - Only 22 per cent of e-waste is recycled and disposed of in an environmentally sound manner & with exponential growth of AI Data Centers, this is currently a big concern*
- Water
  - It is estimated that the global demand for water resulting from AI may reach 4.2–6.6 billion cubic metres in 2027 (This would exceed half of the annual water use in the United Kingdom in 2023)*
- Energy Consumption
  - Large language models (LLMs), driving a significant increase in energy use
  - Single LLM query requires 2.9 watt-hours of electricity (Inferencing), compared with 0.3 watt-hours for a regular internet search*
  - Training a single LLM generates approximately 300,000 kg of carbon dioxide emissions, “which is five times the lifetime emissions of an average car or equivalent to 125 round-trip flights between New York and Beijing*

**** UN Issue Note, 09/24, Artificial Intelligence (AI) end-to-end: “The Environmental Impact of the Full AI Lifecycle Needs to be Comprehensively Assessed”***

Few Trends…

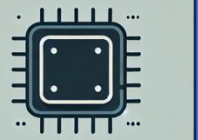
- Accelerated Adoption of S(L)LM’s
- Fast paced research & results around Knowledge Distilling & Reinforcement Learning.
- Deepseek R1 showcased the power of RL training and alignment for task-based reasoning.
- Mature recipes for domain specific distilling from xLLMs (larger general-purpose models - eg Llama 3.2 405B) to smaller models eg Llama 3.2 2B
- Voice LLMs driving low-latency real-time voice agents
- Continuously enhancing AI acceleration capability in lower end SoC’s (***Qualcomm Snapdragon***, ***Mediatek Dimensity***, ***AMD Versal***, ***NVIDIA Jetson Nano***, and many edge-AI semiconductor start-ups etc)

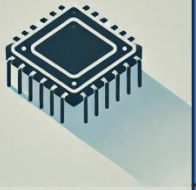
Important Predictions & Challenges

- The HMI (Human-Machine-Interaction) is on the verge of being disrupted, driven by voice-based AI Agents
  - Every hardware device, appliance, machines hungry to become intelligent (ex. Tony Stark's garage, where he interacts with different machines and devices becoming a reality)
- Accelerated movement of LLM inferencing to the edge
- Key challenges to making these embedded devices intelligent & transforming their interaction with humans:
  - Optimized S(L)LM's for resource constrained hardware
  - Knowledge Distilling from general purpose SOTA large LLMs to these S(L)LM's
  - Enabling domain specific business experts to drive all of the above

SYVORA: Solution Components

AI-Capable Hardware		sLLM Adaptation Platform	Low Code/No Code Agentic Workflow Authoring	SDKs for Integration

	Small	- Hardware Optimization
		- LLM Adaptation
		  - Distillation
		  - Domain Adaptation
			- A low code platform for authoring agentic workflows for multiple use cases	- SDK Based integration with the product (eg. Electric Vehicle, Smart home device, plant machinery etc)

	Medium			
	Large			

Introducing *Syvora*: Enabling Embedded Intelligence

- Syvora enables AI-native devices with on-edge intelligence
- We provide:
  1. **AI-optimized hardware** – Cost-effective, scalable hardware for on-device AI inferencing across industries.
  2. **Comprehensive software stack** – Tools for domain adaptation, LLM distillation, and optimization tailored to device constraints.
  3. **Platform for Authoring Agentic Workflows** – A platform to author personalized agentic workflows, through pre trained LLMs
  4. **SDKs** – To integrate with the environment.
- With **Syvora**, businesses can build truly **autonomous, intelligent devices**—from EVs to home appliances—unlocking real-time AI capabilities **without reliance on the cloud**

Competitive Landscape & Key Differentiators

Our competitors include

- NVIDIA, Qualcomm, Tesla – High-performance, resource-intensive AI solutions for automotive and smart devices.
- Startups in AI Inference & Automotive Software – Focused on cloud-centric AI, lacking robust on-device intelligence.
    - e.g. Cerence – AI-powered in-car assistants that rely on cloud-based services.

What Sets Us Apart

- Embedded, On-Device Intelligence.
    - Custom embedded hardware with optimized inferencing, minimizing cloud dependency.
    - Ensures low-latency, real-time processing even with limited connectivity.

- Accessible AI Deployment
    - Low-code/no-code platform for model distillation, fine-tuning & agentic workflows.

- Scalable & Extensible Ecosystem
    - Covers the entire AI pipeline—from model customization to inference.
    - Scale into other industries – from smart home, to consumer electronics, and IoT.

Our Team

Agastya Seth

- Completing his MS Computer Science at Arizona State University in Spring '25.
- Co-authored papers on LLM Safety & Reasoning at CogInt NLP Lab.
- Software Engineer for 3 years at Cadence.
- Currently researching on reward-based alignment techniques in LLMs and diffusion models.

Aditya Seth

- Graduated from BITS Pilani, Hyderabad in 2024
- Working as a software intern at Cadence
- Research experience in model pipelines including VAEs and GANs to perform AI Lip sync at TrueFan.
- Research experience in voice cloning models.

Yash Tomar

- Completing his MS Computer Science at Arizona State University in Spring '25.
- Worked on Multimodal AI, agentic framework and video generation
- Worked as data scientist for 3 years at Amazon and Groww

Akshay Shukla

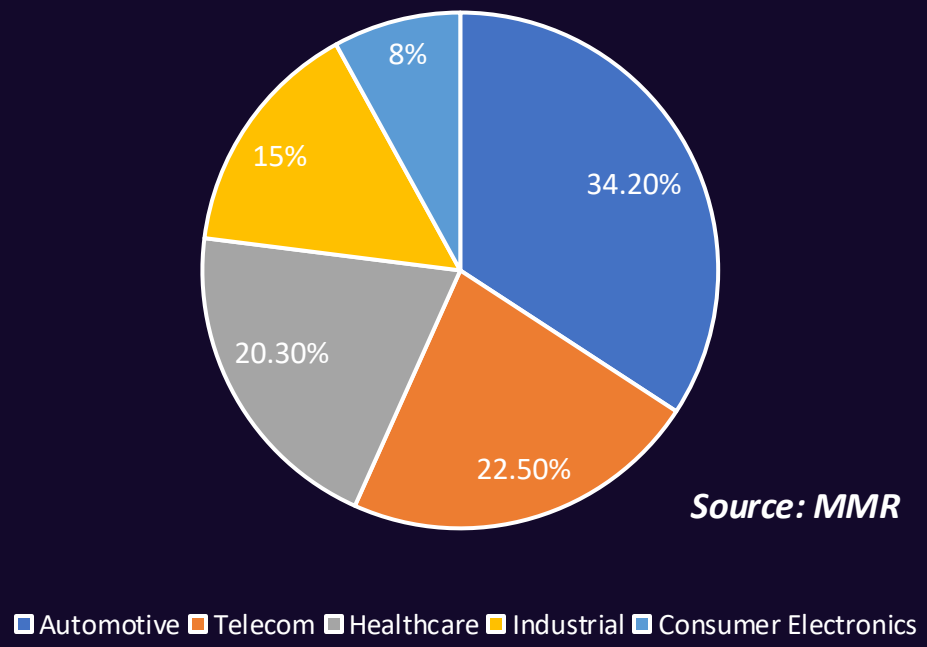
- Co-Founded Timension AI and Quansys AI
- Master's in Computer Science from Lucknow University
- 7 years of experience as software engineer
- Worked on AI recommendation system at Vemba Group
- Build Timension AI Studios horizontal video model

Anurag Seth (https://linkedin.com/in/anuragseth) | Advisor

- GenAI & Deep Tech Leader with 30+ years in semiconductor design, EDA, and AI/ML productization.
- Ex-AWS Principal AI/ML Advisor, fostering APAC's AI/ML startup ecosystem.
- Senior Exec & Mentor at Cadence, Motorola, Kawasaki; expertise in VC, entrepreneurship, and scaling AI teams

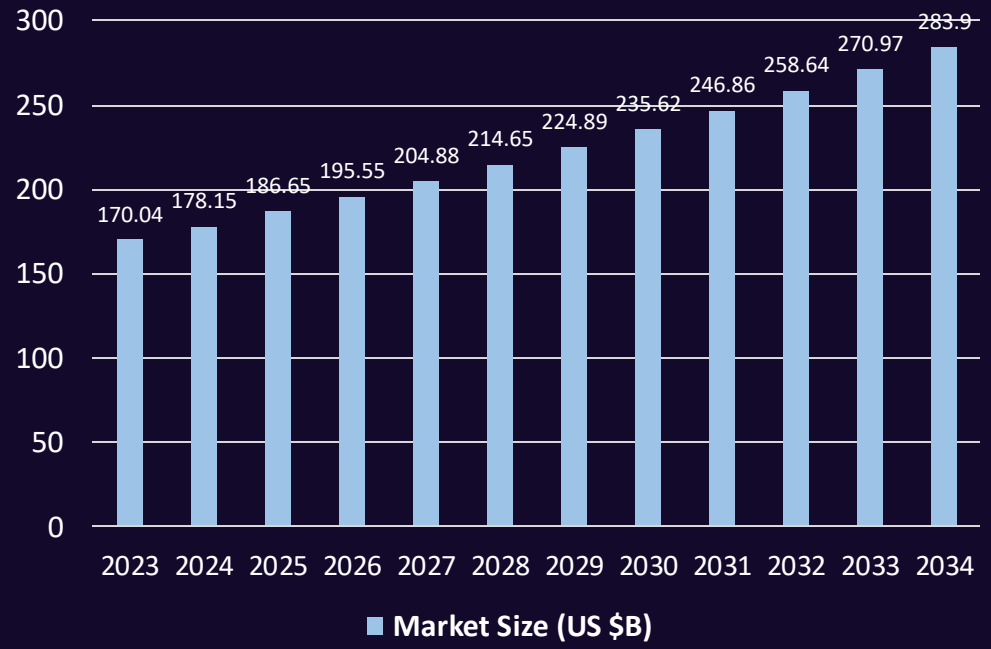
Embedded Systems Market

Segment-wise share (2023)



Source: MMR

Global Embedded Systems Market Size (US $B)



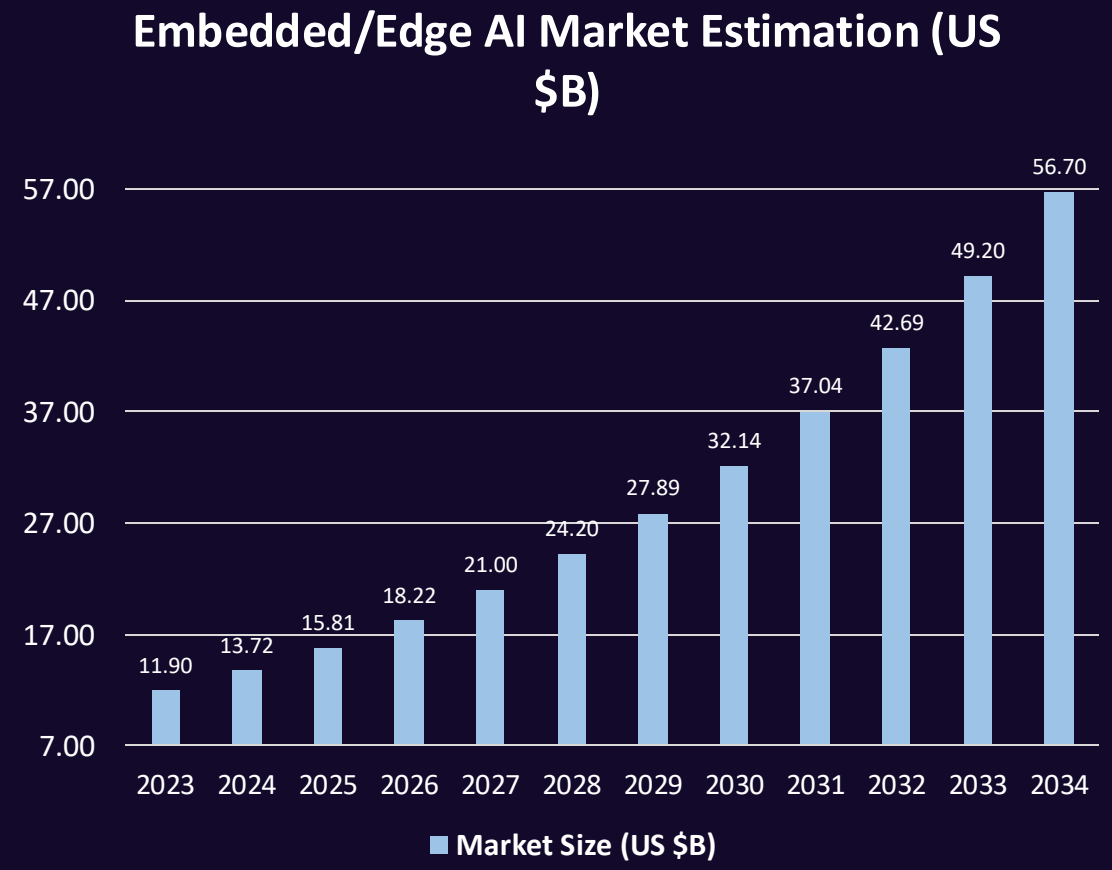
Source: Precedence Research

Automotive Embedded Market expected to grow at CAGR of 8% to about US $60.5B in 2032 *

Source: Global Market Insights

Edge AI: Total Market Sizing

Assuming 7% spend on Embedded AI enablement in 2023, growing at 10% CAGR



Corresponding Global Edge/Embedded AI market in 2032 expected to be around US $56.7B

Source: Global Market Insights

Business Model

Primarily B2B

Item	Pricing
Hardware	Target Selling Price: $175(L), $100(Medium), $50(Small)
SDK License	$5 per month per car
Syvora Platform License	$49 per user per month

Pricing Table

Item	Cost
Monthly Subscription per Car	$5.0
Hardware Cost	$175.0
Svora Platform Subscription per month per User (average)	$49.0

Additional Pricing Information

	Y1	Y2	Y3	Y4	Y5	Y6	Y7
# Cars	0	10,000	35,000	100,000	200,000	360,000	720,000
# Users on Svora Platform	0	50	200	500	1,500	5,000	15,000
Subscription Revenues		$600,000	$2,100,000	$6,000,000	$12,000,000	$21,600,000	$43,200,000
Hardware Revenues		$1,750,000	$4,375,000	$11,375,000	$17,500,000	$28,000,000	$63,000,000
Platform subscription revenues		$29,400	$117,600	$294,000	$882,000	$2,940,000	$8,820,000
US $million		$2.38	$6.59	$17.67	$30.38	$52.54	$115.02

Revenue Projections

GTM Strategy

Phase	Goal	Strategy	Outcome	Timelines
Beta Phase	Establish PMF for Automotive sector	Founder-led initial customer acquisition	- 2-3 POCs completed; at least 1 paying customer	12m
Scaling automotive sector	Scaled, self-sustaining growth in automotive sector	Internal sales team, and partner led growth in automotive; establish US, Europe & Korea GTM	Target 3-3-2-2-2 revenue growth pattern from automotive	12m >
Broad-basing solution for all sectors	Establish PMF and service partner led strategy for other sectors	Internal sales team and service partner led deployments	Successful expansion into 2+ sectors, service partnerships, and 30-40% revenue from new industries.	> 18m