



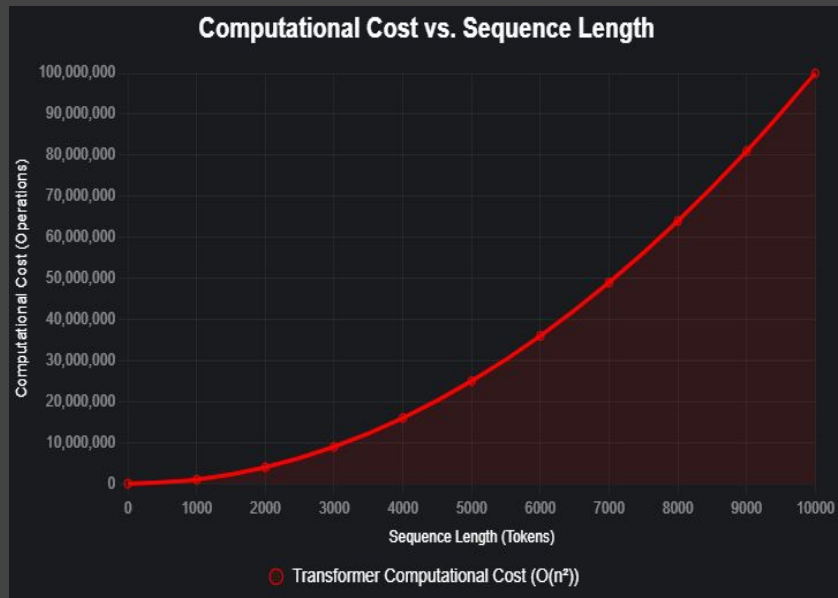
HighNoon LLM: Revolutionizing Sequence Processing

A Breakthrough in Hierarchical Spatial Neural Memory

Verso Industries, May 2025
Presented By: Michael Zimmerman

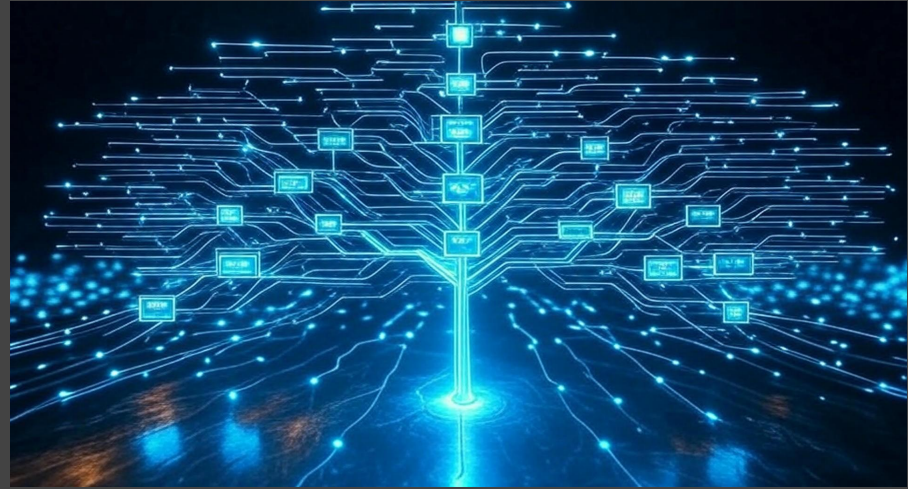
The Inefficiency of Current AI Models

- Standard transformers suffer from quadratic complexity ($O(n^2)$), causing high computational and memory costs for long sequences.
- This inefficiency limits scalability for tasks like document translation, long-form summarization, and extended-context AI.
- Transformers also fail to explicitly capture hierarchical dependencies (e.g., phrases within sentences).



HighNoon LLM with HSMN

- Introduces Hierarchical Spatial Neural Memory (HSMN), reducing complexity to $O(n \cdot c)$.
- Explicitly models hierarchical structures for better efficiency and accuracy.
- Enables faster, cheaper processing of long sequences, unlocking new possibilities in AI.



HSMN Architecture Simplified

1. **ChunkEncoder**: Breaks sequences into manageable chunks (e.g., size 128) and encodes them.
2. **Aggregator**: Builds a binary memory tree by combining chunk embeddings hierarchically.
3. **ReasoningModule**: Generates output by attending to the memory tree, preserving context.

Output \leftarrow Memory Tree \leftarrow Chunk 1, Chunk 2, Chunk 3

Why HighNoon LLM Stands Out

Efficiency: Reduces computational complexity from $O(n^2)$ to $O(n \cdot c)$, where c is chunk size.

Hierarchical Mastery: Explicitly models nested structures, outperforming transformers in tasks like parsing and semantic analysis.

Continual Learning: Employs Elastic Weight Consolidation (EWC) to adapt across tasks without catastrophic forgetting.

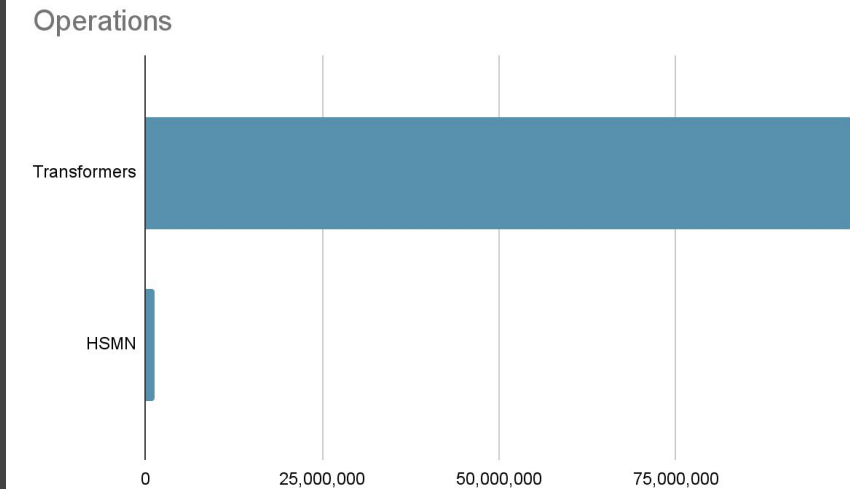
Model	Encoder Complexity	Hierarchical Modeling
Transformer	$O(n^2)$	Implicit
Longformer	$O(n \cdot k)$	Implicit
HSMN	$O(n \cdot c)$	Explicit

Unmatched Efficiency

For a 10,000-token sequence:

- Standard Transformer: 100 million operations ($O(n^2)$).
- HSMN (chunk size=128): 1.28 million operations ($O(n \cdot 128)$).

Result: 78x reduction in computational load.



A \$43 Billion Market Awaits

- NLP market projected to reach \$43 billion by 2025 (21% CAGR).
- Target segments: Tech firms, SaaS platforms, enterprises, and AI solutions.
- HighNoon LLM is poised to capture this with efficient, local processing.

What Sets HighNoon LLM Apart

- Efficiency: $O(n \cdot c)$ complexity vs. $O(n^2)$.
- Hierarchical Mastery: Captures nested structures natively.
- Local Processing: Runs on-device for privacy and cost savings.
- Continual Learning: Adapts without forgetting past knowledge.

Transforming Industries

- Document-Level Translation
- Long-Form Summarization
- Code Generation
- Conversational AI

Simple and Scalable Revenue

- Users buy and download HighNoon LLM for unlimited local use, one license covers 1 device and user.
- No cloud dependency ensures privacy and eliminates recurring costs.
- Revenue via direct model sales to developers, businesses, and individuals.

Path to Market

- Q2 2025: Finalize training and validate benchmarks.
- Q3 2025: Launch for developers and early adopters.
- Q4 2025: Secure strategic partnerships.
- Q1 2026: Expand globally.

Standing Out in the Crowd

- User-Controlled Chain of Thought: Guide the reasoning process for accurate, personalized outputs.
- Localized Interface: On-device processing for privacy and reduced latency.
- Web Search Integration: Access real-time information directly in the interface.
- Plugin Marketplace: Build, share, and sell plugins to create a thriving ecosystem.
- Open-Source Tool Integration: Native support for EhD Thruster and Twin Screw extruder (inference for designs) and Flask backend (generate template repositories).
- Business-Friendly Approach: Respect user data, enabling business growth without exploitation—unlike competitors.

Competitive Landscape and Differentiation

Key Competitors:

ChatGPT, Claude, Gemini,
etc.

Differentiation:

- Superior Efficiency: $O(n \cdot c)$ complexity vs. $O(n^2)$
- Hierarchical Mastery: Native support for nested structures
- Local Processing: Enhanced privacy and cost savings
- Continual Learning: Adaptability without forgetting
- Business-Friendly: No data exploitation, supports user business growth

Our Visionary Team

- Michael Zimmerman: Founder & CEO, Ai Innovation, Software Engineering, Startup Businesses
- Jacob Godina: President & Founder, Marketing, Software
- Abby Hosta: Design, Marketing
- Lee: Machine Learning Engineer
- Elijah: Social Media Content Creation and Management

Fueling the Future

- Funding Needed: \$15M

Use of Funds:

- Training Infrastructure: \$5M (Localized GPU Clusters)
- Talent Acquisition: \$4M (Hire AI researchers and engineers for diffusers and video sequence generation)
- Development: \$3M (Build local APIs, SDKs, and integrate open-source tools)
- Go-to-Market: \$2M (Marketing, partnerships, and global rollout)
- Operational Costs: \$1M (Administrative, legal, and miscellaneous expenses)

- Projected Revenue:
- Year 1: \$5M (Early adopters and developer licenses)
- Year 2: \$20M (Expansion to enterprises and strategic partnerships)
- Year 3: \$50M (Global market penetration and multimodal capabilities)
- Break-even Point: Expected in Year 2

Cost-Effective Scaling: Funding requirements leverage HSMN's efficiency, minimizing hardware needs as local processing reduces reliance on cloud infrastructure for end-user inference.

Milestones to Success

- Q2 2025: Training complete, benchmarks validated.
- Q3 2025: Developer launch.
- Q4 2025: Strategic partnerships secured.
- Q1 2026: Global rollout begins.

Join the AI Revolution

Invest in HighNoon LLM to lead the next wave of efficient AI.

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Let's build the future of sequence processing together.