

AI Companionship and Energy-Efficient Hardware

Cartheur Research, Den Haag, The Netherlands

Beyond Limits: An AeonAl for Future-proofing a Human-centric Scenario

Problem statement



- **Context:** Elon Musk has acknowledged that we've reached the zenith of data availability for AI training. This scarcity poses a significant challenge for AI development, emphasizing the need for efficiency over volume.
- **Problem:** Traditional AI systems are data-hungry, built upon non-optimal design processors, leading to inefficiencies in both computation and energy consumption.
- **Need:** A solution that maximizes AI performance with minimal data and energy use. DeepSeek has opened the door for this. Other brute-force attempts at AI Infrastructure will most likely fail or best-case, become a disappointment.

Solution features



- Adaptive Learning Algorithms: Our AeonAI can learn from existing data more effectively, reducing the need for new data inputs and working as *Ideal*.
- Energy-Efficient Hardware: Custom processors designed to handle Al computations with significantly less power.
- Optimized Data Usage: Techniques like non-redundant transfer learning and data augmentation to maximize the utility of available data without synthesis.
- Real-time System Optimization: AiOps continuously adjusts AeonAl operations for peak efficiency leveraging *Ideal*.

Target audience



- **Primary:** Al Developers and Data Scientists in tech firms seeking to innovate with limited data. Democratization of compute resources possible given the ability to exceed the hard-energy limit.
- **Secondary:** Large Enterprises with sustainability goals aiming to reduce their carbon footprint through IT infrastructure.
- Tertiary: Government and Academia for research in AI with constraints on data availability.
- Beneficial: Sovereign focused operations encourage individual participation.

Competitive analysis



- OpenAI, Oracle, Claude, Meta: Focuses on data volume and brute-force solutions; struggles with efficiency and needs a nuclear reactor to run datacenters.
- **DeepSeek:** Has excellent data-efficient solutions but lacks in AI optimization-as-embodiment.
- **Cartheur:** Novel compute hardware with energy sustainability, tailored for data scarcity, where AeonAI leverage RL to minimize compute and energy consumption per cycle.

Success case



- Project Name: "BumaAI" with a major service company.
- Challenge: Optimize behavior to reduce losses.
- Solution: Implemented our AiOps in Kubernetes A single bazel solution.
- **Outcome:** Achieved a 40% reduction in failure-case while maintaining infrastructure performance.

Notable achievements



- Patents: New patents on energy-efficient AI-hardware-structural processing.
- **Processes:** Enhanced intelligence of AeonAI by the introduction of a live *learning mode*.
- Infrastructure cost: Ability to utilize open-source Kubernetes tools.
- Milestones: Reduced computational tasks-per-energy unit by 90%.

Future roadmap



- **Phase 1 (2025):** Develop enhanced product line embodied into energyefficient AI processors.
- Phase 2 (2026): Introduce next-generation processor for larger concept datacenters and cloud services.
- **Phase 3 (2027):** Global rollout of our solutions, targeting major markets in USA. Europe, and Asia.
- Phase 4 (2028): Introduction of personal compute and sovereign wallet robots.
- **Long Term:** Aim to be the leader in AI efficiency, exploring quantum computing for further advancements while keeping humanity firmly in-focus.

Investment & Partnership opportunities



• **Funding Needed:** \$10 Million for product development, chip manufacturing production, and R&D.

Use of Funds:

- 30% R&D for AeonAl, chip-hardware improvements, and features.
- 20% Expansion of manufacturing capabilities.
- 30% Embodiment challenges and experiential automation.
- 10% New customer acquisition.
- 10% Marketing and global outreach.
- **Partnerships:** Seeking collaborations with retail, institutional, and sustainable technology advocates.

Team



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Founder & Technical CEO

Systems Designer and Creator of AeonAl

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Conclusion



- **Summary:** We have arrived the end of a technological paradigm of AI; the limit of both data and energy has been reached. Without new ideas of computers, we will relentlessly continue to fund brute-force methods to further endanger ourselves and our environment. A new approach is required not just about managing AI with limited data but doing so in an energy-conscious manner.
- Call to Action: Join us in establishing a future for AI, and human-machine interfaces where efficiency and sustainability go hand-in-hand.
- **Ideation:** Listed on our github pages: https://github.com/cartheur. Parsed by Organizations.
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