DEEPTECH PERSPECTIVES

Key Thesis #2: Fusion Energy

Mainstream Perception

- Fusion is the most ideal potential energy source, where it (i) delivers 4 million times the energy density of fossil fuels, (ii) emits no greenhouse gases, (iii) entails no nuclear waste, and (iv) utilizes abundant fuel that stems from seawater and lithium. However, fusion has long been a distant frontier — always "ten years away" since tokamaks first emerged in the late 1950s — deterring most investors.
- Achieving practical fusion requires extreme conditions, namely temperatures of at least 100 million °C (six times hotter than the Sun's core) and very high pressures. Tritium — the key hydrogen isotope in a fusion reaction — is exceedingly scarce, short-lived, and must be synthetically bred, complicating reactor design and operation. Startups are racing to achieve net gain (i.e., "Q>1"), where output energy exceeds the input energy required to initiate the reaction. However, large tokamak projects like Commonwealth Fusion still lack a path to cost-competitive grid-scale power generation given high capex (massive magnets) and downtime from neutron damage.

Hyperion Thesis

- Advancements in deep learning and AI hardware from 2023 to 2025 have allowed for (i) ML-powered real-time plasma prediction and control, and (ii) AI-driven discovery of new semiconductor and magnet materials to resolve key fusion challenges around plasma stability.
- Next-generation fusion reactors with AI-forward approaches that enable novel design innovations have the potential to supplant traditional methods and compete with existing power sources on a levelized cost of energy (LCOE) and capex per watt ($/W) basis.

Hyperion Right to Win

- Dillon originally started researching fusion energy in 2021 while at Firmament, spending significant time with upstart Zap Energy during their Series B process. Although Firmament was not able to make the investment in Zap, that relationship kicked off Dillon's network in the space.
- From 2022 to 2025, Dillon met nearly 20 fusion startups, investing in 3 reactor players (Zap Energy, Avalanche Energy, Hephaestus) and 1 infrastructure player (Marathon Fusion). Dillon maintained his relationship with the Zap Energy CEO from 2021 onward and was able to win ~$140K allocation in the Series D round in order to back a market-leading player and build further credibility.
- Fusion energy CEOs that Dillon has backed cite his deep technical understanding of the space, exemplified by his deep-dive blog post on the market and different reactor architectures.

Key Investments

Hephaestus

ZAP ENERGY

Marathon Fusion

Key Thesis #3: Agentic Cybersecurity

Mainstream Perception

- Many enterprise AI investors are excited about (i) the prospects of agentic AI enablement across the cybersecurity stack, (ii) the potential for new solutions given new attack vectors (e.g., via LLM systems through prompt injections and other attack methods), and (iii) the proliferation of threats given ease of generating phishing emails and other attack types with LLMs.
- Large cybersecurity incumbents (e.g., Palo Alto Networks, Crowdstrike, Zscaler) continue to compound quickly and consummate early acquisitions of potential threats, driving reticence around the viability of new cybersecurity platforms that can scale to $10+ billion enterprise value outcomes.

Hyperion Thesis

- Hyperion believes that agents will autonomously handle security alert management and remediation, and AI startups will build tools across the security stack — from raw event data (SIEM) all the way to human touchpoints (email / M-SOAR). As phishing becomes more sophisticated and human error remains the dominant security failure point, removing risk from security analysts will be critical.
- Hyperion is highly focused on where agentic tools can solve exacerbated labor supply constraints across the cybersecurity industry, especially in security operations centers (SOCs). In the U.S., there are nearly 300K unfilled roles relative to the 1.3 million cybersecurity workforce; globally, there is a 3+ million cyber workforce gap. Task automation will drive robust staffing of enterprise SOCs and also create further efficiencies within the >$36 billion managed security service providers (MSSP) market.
- Hyperion will also seek to pursue AI-enabled platform plays in emerging paradigms like zero-trust architecture (ZTA), next-gen threat intelligence, and hardware security.

Hyperion Right to Win

- Dillon screened over 40 Series C+ cybersecurity companies while at Vista and helped deploy ~$320 million across 3 companies: (1) KnowBe4, a phishing training and email security platform, (2) Acronis, a full-stack security platform for managed service providers, and (3) Deepwatch, a managed detection & response platform for SOCs.
- As an example, Dillon leveraged his cybersecurity experience to invest alongside Nat Friedman & Daniel Gross in the Seed round of Composite Security, a provider of agentic workflow tools for browser-based security operations. The founders were initially focused on MSSP customers, and Dillon had deep experience through his time with major MSSP security platform Acronis while at Vista. Dillon plans to continue adding value by extending his growth-stage cybersecurity experience and network to founders.

Key Investments

composite

Innerworks

Clouttake

Key Thesis #4: AI-Powered Robotics

Mainstream Perception

- Capital is now rushing into robotics ($14+ billion invested in 2023 and 2024), as investors recognize that spatial AI models (e.g., vision-language-action models like that of Figure AI) can learn relationships between objects and reason across physical interactions. These capabilities were effectively impossible before the release of GPT-3.5 in 2022 and initial proliferation of multi-modal models in 2023. Therefore, robots can now perform tasks that were not explicitly in the training data, allowing for broad-based behavior generalization.
- Valuations have skyrocketed given a large amount of capital chasing few AI-powered robotics assets, with investor theses anchoring to automation of large swaths of the $10+ trillion addressable market for physical labor (e.g., warehouse, manufacturing, home services, etc.).

Hyperion Thesis

- Humanoids will be a form factor that could feasibly hold multiple competitors worth $100B+, but the vast majority of enterprise value creation will be in non-humanoid robot categories. Hyperion believes that certain form factors will have better task efficiency (i.e., easier to process and handle objects with less degrees of freedom) and better unit economics (i.e., higher gross margins / lower costs) than humanoids.
- Hyperion believes that most of the AI-powered robotics market will fragment into application-specific businesses, where fully integrated players (e.g., developing both hardware and software in tandem) will have the best products. Software-only robotics model players like Physical Intelligence and Skild could easily be disintermediated as full-stack players develop the best software infrastructure – which could be easier given open-source proliferation and AI-enhanced software talent – then driven through tight iteration flywheels with purpose-built hardware.

Hyperion Right to Win

- Entrepreneurs in robotics appreciate (1) Dillon's academic work in robotics through his work on RoboBees at the Harvard Microrobotics Lab and other projects, and (2) Hyperion's high-conviction, non-consensus early investment in Figure AI back in early 2023. Dillon's engineering mindset and technical preparation going into introductory calls with founders allows him to win early credibility.
- Dillon's close relationships with Amazon (both AWS and warehouses) and private equity firms (which owns services businesses across manufacturing, healthcare, and home services) are helpful to robotics founders who want broader customer access.
- Dillon is mentored by one of the Figure AI board members, who expects to work with Dillon to evaluate pre-seed rounds for spin-outs across the industry. Additionally, Dillon is close with Coatue, who recently published their deep-dive perspective on robotics and can be a strong partner on early-stage opportunities.

Key Investment

FIGURE