In April of 2025, Deeplite was acquired by STMicroelectronics.

Deeplite's journey from its inception at TandemLaunch to this milestone invites reflection—about what it really takes to build a deep-tech company from the ground up, on how innovation actually finds its market, and on what we learned along the way when teams push through tension and uncertainty to stay true to an idea.

Deeplite wasn't built for an obvious market. It was built for one that didn't quite exist yet.

The Premonition of Edge AI

In 2017, Ehsan Saboori joined TandemLaunch after completing a PhD focused on optimizing FPGA designs. Our company creation process with our EiRs demands a creative mind grounded in the ability to spot emerging trends. I recall sitting in a conference room at the TandemLaunch office discussing the challenges—and inevitability—of AI models running entirely on edge hardware, when Ehsan detailed a parallel between his PhD work and what would be necessary to enable that future. Optimizing FPGA designs is a design space exploration problem requiring the optimization of several parameters at once. Ehsan showed me how a similar principle could guide the optimization of AI models, with resource constraints being fed as parameters to find the right architecture.

Davis Sawyer, who would become Ehsan's co-founder, joined the same year, convinced after an internal TandemLaunch pitch session. Their conversation post-pitch was all it took to solidify the relationship.

In early 2018, Deeplite began its incubation. The goal was to shrink deep learning models so they could actually run on low-power hardware. Their early proof of concept, written in Caffe, showed a dramatic enhancement in YOLO-based object detection on a GPU. The appeal of creating more efficient GPU deployments was significant—it was all the market could talk about—but it was the early manifestation of a tension that would exist throughout the Deeplite journey. Was Deeplite about efficiency gains in existing AI deployments? Or was it going to be an enabling capability for the next generation of AI-specialized chips? Were they increasing efficiency across all devices—or enabling the Edge?

At that time, the semiconductor industry was experiencing significant growth, with worldwide revenue reaching approximately $478 billion in 2018, a 15.9% increase from 2017. This growth was driven by new product categories and booming business across various sectors, but the specialized AI-chip market was still rather nascent. The pull towards GPUs was powerful across the industry.

Navigating the Noise
In 2019, Nick Romano joined Deeplite as CEO, and the challenge to raise financing and spin out of TandemLaunch kicked off. As the company pushed forward, Edge AI slowly started to take space in the conversation. However, the GPU market—loud, hungry, and capital-rich—kept most eyes elsewhere. This presented a significant challenge for Deeplite: they had to find a way to convince investors of the future while de-risking the short term.

More difficult still, the difference between GPU efficiency gains and enabling AI models on resource-constrained devices required two different business models. Fortunately, BDC, Desjardins, and Somel Investments saw the potential for the fledgling venture to play a significant role in the growing hype around AI. Despite the ambiguity in how the market would move, they joined us and injected the fuel needed to take Deeplite to its next stage of development.

Finding Its Fit
On its journey, Deeplite spent significant time and capital chasing GPU customers. People unfamiliar with the nature of deep-tech could see this as a waste of resources, but the nature of finding the right market for a disruptive technology is never a straight line. A commercial strategy requires exploration, because finding an underserved market is not a trivial exercise—by their very nature, these markets don't appear in the headlines. The problem isn't well-articulated, because the solution hasn't yet emerged to make it apparent.

After a further boost of capital from PJC, Innospark Ventures, and Differential Ventures in 2021, Deeplite uncovered a swath of customers who were leading the charge in the AI-chip market. These customers were characterized by innovative chip design that needed software counterparts to catalyze their adoption in the market. "Most companies put all the pressure on the user to figure it out," Ehsan explained. "But look at CUDA. NVIDIA made hardware usable by building the right stack."

When the Fit Appears
By April 2024, STMicroelectronics was the leading contender for Deeplite's offerings. Unlike others, STM was thinking holistically about the problem of edge deployments. A leader in microcontrollers, they had understood that hardware alone wasn't enough. You needed tight co-design between hardware and software to deliver real performance. "It's what Deeplite was built for," says Ehsan.

The alignment was immediate. And the purpose behind Deeplite—making AI accessible on the edge—suddenly had the platform it needed. This moment of product-market fit coincided with a broader industry trend: the global edge artificial intelligence chips market was valued at USD 3 billion in 2024 and growing rapidly, driven by an increasing adoption of IoT technologies. Deeplite had found its partner.

An Exit, Not an Ending
For Ehsan, the acquisition is not the end of the journey. "It's a very good feeling," he said. "But it's just the end of the first chapter. The journey's not over until the technology is in people's hands." He'll continue the mission at STM, helping the next generation of products come to life. The work now moves from validation to scale.

Looking Back
Deeplite's journey isn't just a story of success. It's a story of course correction, creative tension, and the importance of staying in the game long enough to be right.

- Optionality is not a lack of focus—it's the strategy of disruption.
- Misalignment between Sales, Product, and Tech is not dysfunction—it's a necessary part of innovation under uncertainty.
- Mistakes that are learned from aren't setbacks—they're how deep-tech finds its footing.
- And most critically, early capital must be treated as permission to explore, not just to deliver.

None of this would have been possible without the ingenuity of Prof. Sherief Reda at Brown University, whose research seeded the company, nor without the co-founders, Ehsan, Davis and Nick, who nurtured the vision through ambiguity and scaled the company. Moreover, this would not have been possible without the investors who took a leap when few others would: PJC, Innospark Ventures, Somel Investments, Differential Ventures, Desjardins, and BDC. These were firms that backed deep-tech in the middle of a pandemic—that takes courage and foresight.

Deeplite marks the first company I've personally seen through the full arc—from research inception to exit. You watch many companies evolve, pivot, succeed, or fade. But to see one travel the entire path—especially one born from a deep and early technical thesis—is deeply rewarding.

It's a reminder of what we're here to do. Not just to fund startups, but to shepherd difficult, necessary technologies into the world. Technologies that require patience, iteration, and people willing to take the long view.

Deeplite's story continues at STMicroelectronics. And for all of us in the ecosystem who believe in deep-tech as a force for transformation, it's proof that the long game is worth playing.

Omar Zahr
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