From: https://a16z.com/2022/01/19/investing-in-ambient-ai/

## **Investing in Ambient.ai**

by Martin Casado

In the summer of 2011, a masked intruder managed to open a locked door of Nicira, the startup I co-founded, walk directly to the desk of a well known engineer, passing many others on the way, grab a server, and leave. This happened all within two minutes.

Unfortunately, we only learned of this many weeks after the attack. And only because it was an important server, we ended up sitting through hundreds of hours of security camera footage just to find that two minute breach. If it had been something of lesser importance, say a laptop, we would have likely assumed it had been misplaced and never uncovered the intrusion.

Of course, having a background in cybersecurity and working on a product with deep roots in cybersecurity, we invested heavily to prevent cyber crimes. And indeed, in the life of Nicira we never had a major cyber intrusion. However, as the old adage in computer security goes, your cyber stance is only as strong as your physical stance. As a startup with limited resources, we just didn't have the budget nor expertise for world-class physical security.

This issue has played out over the last decades at a grander scale industry-wide. Many organizations deploy millions of cameras to survey their physical assets, and even hire large operational teams to monitor those cameras. However, there just aren't enough eyes to cover enough of an organization's footprint to catch an intrusion like the one we experienced. Thus, traditional physical security teams are in a state of constant reactivity.

Fortunately, this is all changing as physical security starts to adopt AI. While this is a broad trend that's found its way into vehicle cameras, residential security systems, and drones, Ambient.ai is the leading company bringing computer vision intelligence to enterprise physical security operations.

The Ambient.ai team has been working on this problem for the last five years. Put simply, they've cracked the malicious action detection problem so that their software (which integrates seamlessly with all standard security cameras) can detect problems in real time, immediately alert operators, and automate dispatch for remediation. Their approach is far deeper than simple motion and object detection. The Ambient.ai Platform brings near-human perception to video feeds to contextualize scenes and determine behaviors and interactions including tailgating, theft, brandishing a weapon, assault, and far more. In total they've generated over 100 threat signatures.

We met the co-founder and CEO of Ambient.ai, Shikhar Shrestha, after he graduated from Stanford. I remember being (more than slightly) dumbfounded as he walked us through the concept and demo. But it was the combination of Shikhar's personal story, in which he and his mom once experienced a robbery at gunpoint, his deep domain knowledge of the physical security space, and Ambient.ai's conviction in a low-overhead, software-only approach that convinced us that this is the best team and the right solution to the problem. Over the last five years, not only did Ambient.ai build the best-in-class computer vision team, but also secured some of the world's largest organizations, including Adobe and VMware, as customers. The software is actively protecting hundreds of global sites and identifying over 200 dispatch-worthy incidents per week. Ambient.ai has also already prevented multiple significant security incidents from happening in the past couple of years. We're thrilled to support Ambient.ai as they launch publicly and look forward to the Ambient.ai Platform keeping us safer in the physical realms of security.