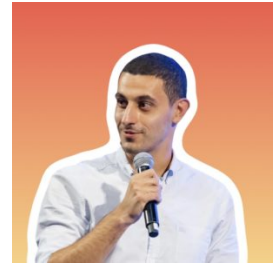


Case study: Unum

State of Open: The UK in 2023

Phase Two “Show us the Money”

Part 1: “The Economics of Open Source Software”



Ash Verdanan, Founder

Unum, founded in 2015 by Ashot Vardanian, is an Armenian-based AI infrastructure company that originated from a deep-tech research lab. Ashot’s early coding prowess led to the establishment of Unum, self-funded in his twenties, with a vision for global expansion. Unum employs an open-core model, offering both open-source and proprietary versions, with a focus on efficiency for large scale data processing. Notably, the company’s projects like UStore and USearch contribute to a comprehensive data lake for global enterprise clients. Ashot’s strategic decision to expand to Palo Alto and London underscores the importance of international presence, connectivity, and access to top talent. Unum’s story reflects a commitment to pioneering AI infrastructure solutions on a global scale.

Unum, founded in 2015 and headquartered in Armenia, was the brainchild of an ambitious and driven technologist, Ashot Vardanian. This was not his first venture as Ash started coding at the young age of seven and prior to graduating from high school had created multiple successful applications. He self-funded Unum in his early twenties as he deeply believed in its potential to scale and grow into a global organisation with future plans to move into the UK and US.

The Beginning: Ready, Steady, Go

Unum started as a ‘deep-tech’ research lab focused on designing next-generation AI infrastructure.

While building Unum, Ash visited dozens of countries and conferences to establish connections with labs and enterprises worldwide and link them with Armenia, where Unum is based today. His path towards modern AI was through infrastructure, as he says, “It’s not just about building models, training them or new custom datasets – it’s more about building the tools that everyone will need to essentially scale AI and data processing.” With seven and half years in the making, today Unum is led by 13 engineers, representing some of the best talent of Armenia. Ash shares with us that it’s only been six months since they prototyped the first technology – which follows an Open Core path.





An Open Core idea

Unum follows an open core business model as it has an Open Source version and a proprietary version, for every piece that they design. The core differentiating factor between them is efficiency. As Ash explains, “when you start processing data at a large scale, the cost of compute becomes very important. Start-ups don’t understand this metric. They never face the problems of scale. Things are different for the Enterprise customers, or the front-runners of the AI arms race, spending Billions on data centres. The proprietary version is meant for them.”

Unum’s innovation comes from years invested in theoretical Computer Science research and low-level engineering, allowing them to harness untapped hardware potential. This approach is manifested in UStore, USearch, UForm, and UCall, among other FOSS projects that Unum maintains. A database, a search engine, a family of pre-trained neural networks, and a remote procedure call library. As Ash says, “All of this makes up a data lake that we now integrate with enterprise customers worldwide. That will be the infrastructure driving the next decade of growth at extreme scale across both the private and public sector.”

AI Explosion: Global Expansion

With the rebirth of AI and related technologies, Ash feels that it is time to go global.

“For our software to be used in every country, in every business, we need to be present in two locations, Palo Alto and London.” He highlights some of the benefits of being placed in London, citing connectivity as one of the main drivers. He says, “we want to be in a place where we have international airports with regular flights to every major part of the globe.”

Unum is not an AI company that builds AI models, and is more focused on infrastructure for databases search, data management, pre-training and runtimes – meaning that they have a global, limitless customers base, that is not limited by size of organisations. They mostly sell to big tech companies and need to be able to fly to any part of the globe on any day. Aside from connectivity, he feels that the talent pool both in California and London is invaluable and hosts some of the best brains in the business. He believes London is “probably the best in Europe,” but would benefit further from opening its borders to global talent and making the process of working in the UK as a non-national simpler and more straightforward. As he says, “I look at every country, no matter where I travel, people are the main equity, the main value. London is a huge selling point for me.”



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