Most of America’s “Most Promising” AI Startups Have Immigrant Founders

CSET Data Brief

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Executive Summary

Immigrants are critical to the U.S. artificial intelligence sector. To understand how immigration shapes AI entrepreneurship in the United States, we analyze the 2019 AI 50, Forbes’s list of the “most promising” U.S.-based AI startups. According to Forbes, these 50 companies had 125 founders in total. Using public data on their places of birth and educational histories, we estimate that 53 of these 125 founders (42 percent) were first-generation immigrants to the United States, and 33 of the AI 50 companies (66 percent) had at least one immigrant founder. An estimated 72 percent of these founders first came to the United States on student visas; the others came for professional opportunities, in many cases likely using H-1B work visas. These findings provide further evidence of immigrants’ importance within the U.S. AI ecosystem, and point to potential immigration reforms that could boost AI innovation and entrepreneurship in the United States.
Introduction and Methodology

Immigrants are twice as likely as native-born Americans to start new businesses.\(^1\) Indeed, half of Silicon Valley’s startups have at least one foreign-born founder, and tech companies founded by immigrants employ tens of thousands of Americans today.\(^2\) In AI in particular, experts recognize that a clear immigration pathway for foreign talent is vital to ensure U.S. leadership.\(^3\) However, there is little empirical research into the role of immigrants in AI entrepreneurship specifically. The Forbes 2019 AI 50 list provides an opportunity to fill this gap.

The list includes America’s 50 “most promising” AI startups, as determined by Forbes from financial data and input from a panel of subject matter experts.\(^4\) The list includes the names of each listed company’s founder(s). Most companies were founded by more than one person; there are 125 founders listed in total. Every AI 50 company is based in the United States.\(^5\)

To determine each of these founders’ immigration histories, we reviewed LinkedIn profiles, corporate biographies, media profiles, and other public sources. In some cases, we also corresponded directly with the founders themselves. If these inquiries confirmed that an AI 50 founder (1) was born abroad, attended high school abroad, or began their undergraduate studies abroad, and (2) was later present in the United States as a worker or student, we counted them as immigrants to the United States. Otherwise, we assumed they were native-born.

Our findings, discussed below, are estimates. In about 10 percent of cases (13/125), AI 50 founders’ birthplaces and early educational histories are not publicly documented. These individuals are counted as native-born in our analysis, even though some of them may be immigrants. At the same time, a founder does not need to currently live in the United States to be considered an immigrant in our analysis. In other words, an individual who was born elsewhere, came to the United States for work or study, and then left—founding an AI 50 company at some point along the way—is counted as an immigrant to the United States.
Findings

We estimate that 33 of the AI 50 companies (66 percent) have at least one first-generation immigrant founder, and 53 of the 125 founders (42 percent) are first-generation immigrants.

India and Israel were the largest senders of immigrant AI 50 founders, followed by the UK, China, and Portugal:

Figure 1: India and Israel were the top senders of immigrant AI 50 founders.

Source: CSET analysis of Forbes AI 50, LinkedIn, and other sources. A founder’s country of origin is the first country where our research confirms they were born, studied, or worked.

Using the same sources, we estimate that 38 (72 percent) of the immigrant founders came to the United States to pursue higher education. Ten (19 percent) came for undergraduate education, 19 (34 percent) for master’s degrees, eight (15 percent) for doctoral degrees, and one (2 percent) for executive education. Fifteen (28 percent) appear to have immigrated to the United States for work opportunities—that is, their presence in the United States is first documented in connection with a job.
Our data suggest that most of the AI 50’s foreign-born founders first came to the United States on student visas. After graduating, some may have stayed in the country through the Optional Practical Training (OPT) program; others may have directly transitioned to an H-1B skilled worker visa, employment-based permanent residence, or another immigration status. Based on overall immigration statistics, OPT and H-1B were probably most common.

The United States does not have an entrepreneur or startup visa, meaning that these elite founders, like all immigrant entrepreneurs in the country, had to find other pathways. But none of the major pathways that exist today are well suited for founders:

- **OPT** lasts three years at most, and participants must have a “day job” at a sponsoring company.
- **H-1B** visas are numerically capped, making them hard to obtain. The H-1B visa also requires employment at an existing U.S. company.
Some founders may be able to “employ” themselves at their own startups for H-1B purposes, but this is a technically challenging maneuver that involves ceding control over the company.\footnote{13}

- The O-1 “extraordinary talent” visa has vague and demanding eligibility criteria that effectively exclude many entrepreneurs, especially early-career founders.\footnote{14}
- \textbf{Employment-based green cards} offer a high degree of freedom once obtained, but are subject to numerical caps and long backlogs, especially for Indian and Chinese nationals.\footnote{15}

These issues have prompted concerns that current law is discouraging entrepreneurship among immigrants who have innovative ideas but no practical pathway to stay and build businesses in the United States.\footnote{16} Recent studies find that foreign-born U.S. PhD students are less likely to create or join startups, and that visa policies are at least partially to blame.\footnote{17}

Consistent with these concerns, many immigrant founders of AI companies have described their personal struggles to stay in the United States. Michelle Zatlyn, co-founder of the leading cybersecurity firm Cloudflare, came to the United States on a student visa, started Cloudflare on OPT, and (after initially being rejected) eventually managed to win an H-1B visa, with CloudFlare itself as her sponsor.\footnote{18} Purva Gupta, whose retail tech company, Lily AI, recently raised $12.5 million, applied for six different visas before obtaining a green card.\footnote{19} In correspondence with the authors, the founder of an AI 50 company explained how he started his first business in the United States while on OPT, but was forced to leave for Canada after failing to secure an H-1B. Several years later, he returned to the United States to start another company, which now claims a spot on the AI 50—but his company keeps a significant presence in Canada, in order to attract and retain skilled foreign workers who cannot get through the U.S. immigration system.

Defying the odds, these particular founders managed to overcome immigration obstacles and launch their companies in the United States. Yet for each foreign-born entrepreneur fortunate enough to make it through the system, many others likely will not. To ensure that the founders of tomorrow’s AI 50 will work and innovate in the United States, policymakers should consider lifting current immigration restrictions—such as the annual numerical limits on green cards—and creating new immigration pathways specifically for entrepreneurs.\footnote{20}
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Endnotes


5 See D’Onfro, “AI 50.”

6 That is, the first record of their presence in the United States in the public sources we reviewed was related to a course of study in the United States, excluding high school.

7 The subtotals add up to 70 percent, rather than 72 percent, due to rounding.
We include postdoctoral work in this category.


20 For further discussion, see Tina Huang and Zachary Arnold, “Immigration Policy and the Global Competition for AI Talent” (Center for Security and Emerging Technology, June 2020), https://cset.georgetown.edu/wp-content/uploads/CSET-Immigration-Policy-and-the-Global-Competition-for-AI-Talent-1.pdf; Zwetsloot et al., “Keeping Top Talent in the United States”; Arnold et al., “Immigration Policy and the U.S. AI Sector.” On the link between green cards and startup activity, see Roach and Skrentny, “Why Foreign STEM PhDs are Unlikely to Work for US Technology Startups” (“Foreign PhDs who first work in an established firm and subsequently receive a green card are more likely to move to a startup than another established firm, suggesting that permanent residency facilitates startup employment.”).