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February 8, 2025

U.S. Department of Homeland Security  
Citizenship and Immigration Services

**Re: Aakash Rao Nallabothula Surya**

To Whom It May Concern:

I am writing this letter in strong support of the O-1 visa petition for Aakash Rao Nallabothula Surya, an exceptional educator, entrepreneur, and software engineer with expertise in AI, including machine learning, deep learning, and natural language processing.

I serve as an Assistant Professor in Nanoscience and the Director of the Advanced Science Research Center (ASRC) Nanofabrication Facility at the City University of New York (CUNY) in Manhattan. I earned a Ph.D. in Physics from Cornell University (2014) and hold degrees in Mathematics (2005) and Computer Science (2000). My professional work has resulted in 39 peer-reviewed journal and conference papers, two patents, and numerous invited talks. My current research spans solid-state physics, nanofabrication, and AI development, with a focus on applying AI solutions to enhance research in academic shared-user facilities across the U.S. and beyond.

Aakash is an extraordinarily talented educator, entrepreneur, and AI engineer whose contributions have directly impacted my work and research. I first became aware of his expertise as the CEO of Jovian, an online learning platform focused on Data Science and AI education, which has gained widespread recognition. As an experienced scientist and technologist, I was deeply impressed by Aakash's masterful teaching style, depth of knowledge, and innovative approach to education.

I enrolled in Jovian's courses and, under Aakash's instruction, spent six months in the learning community, eventually earning a Data Science and Machine Learning certification. Despite my extensive education—including an Ivy League institution—I consider my time at Jovian to be the most impactful and transformative learning experience of my career, rivaling even my Ph.D. studies. Aakash's unique teaching methods, rooted in mathematical rigor and practical application, cultivate a deep, lasting understanding in his students. Beyond this, the learning community he fostered was unparalleled, and I continue to engage with its members to this day. Since my experience at Jovian, Aakash has become my benchmark for instructional excellence.

Beyond his role as an educator, Aakash is a valued collaborator in my research. In 2023, during a visit to the U.S., he toured my Nanofabrication Facility at the ASRC and we discussed the intersection of

Generative AI and nanofabrication, particularly in the context of U.S. semiconductor manufacturing and the CHIPS Act. Since then, Aakash has actively contributed to my work on applying AI to nanofabrication research.

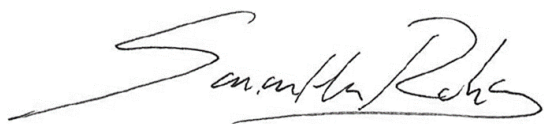
Together, we developed a Retrieval-Augmented Generation (RAG) AI application for semiconductor tool documentation, where Aakash's expertise guided the project's direction. This work was presented at the 2023 City University of New York Information Technology Conference, with Aakash as a co-author. Subsequently, we collaborated on "Nanobot", a pioneering Generative AI project that processed 18 years of MIT Labnetwork data, a vital resource for nanofabrication facilities worldwide. We presented this project at the 2024 University Government Industry Micro/Nanotechnology Symposium (UGIM), held at MIT, where it received significant attention from the international research community in attendance. This work is ongoing, and it has drawn interest from leading institutions such as Stanford, Harvard, and MIT, further underscoring its potential impact on the field.

In addition to his technical contributions, Aakash is a mentor, advisor, and thought leader. He is currently revamping the Jovian platform, emphasizing accessibility and affordability, further democratizing AI education. Even amidst his entrepreneurial endeavors, he continues to share his knowledge selflessly, embodying intelligence, integrity, and vision. His work has had a global impact, and he ranks among the top 1% of professionals I have encountered in my career.

In summary, Aakash is an exceptional individual whose expertise in AI, machine learning, and education has had a profound impact on my work and the broader research community. His contributions to technology, entrepreneurship, and education are of the highest caliber, and he possesses a rare combination of technical brilliance, teaching excellence, and visionary leadership. I have no doubt that he will continue to make groundbreaking contributions that will benefit the United States and beyond. I strongly support his O-1 visa petition without reservation.

Please feel free to contact me should you require any further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Samantha Roberts". The signature is fluid and cursive, with a long horizontal line extending from the left side.

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