Stanford

# Sadasivan (Sadas) Shankar

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NIH Biosketch available Online

## Bio

### BIO

Sadasivan (Sadas) Shankar is Research Technology Manager at SLAC National Laboratory and Adjunct Professor in Stanford Materials Science and Engineering. He was the first Margaret and Will Hearst Visiting Lecturer in Harvard University and the first Distinguished Scientist in Residence at the Harvard Institute of Applied Computational Sciences. He has co-instructed classes related to materials, computing, and sustainability and was awarded Harvard University Teaching Excellence Award. He is involved in research in materials, chemistry, and specialized AI methods for complex problems in physical and natural sciences, new frameworks for studying computing, and a new course on Translation: From Invention to Innovation. He is a co-founder and the Chief Scientist in Material Alchemy, a “last mile” translational and independent venture for sustainable design of materials.

Dr. Shankar was a Senior Fellow in UCLA-IPAM during a program on Machine Learning and Many-body Physics, invited speaker in The Camille and Henry Dreyfus Foundation on application of Machine Learning for chemistry and materials, Carnegie Science Foundation panelist for Brain and Computing, National Academies speaker on Revolutions in Manufacturing through Mathematics, invited to White House event for Materials Genome, Visiting Lecturer in Kavli Institute of Theoretical Physics in UC-SB, and the first Intel Distinguished Lecturer in Caltech and MIT. He has given several colloquia and lectures in universities all over the world. Dr. Shankar also worked in the semiconductor industry in the areas of materials, reliability, processing, manufacturing, and is a co-inventor in over twenty patent filings. His work was also featured in the journal Science and as a TED talk.

### CURRENT ROLE AT STANFORD

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# Publications

## PUBLICATIONS

- **Neuromorphic Intermediate Representation: A Unified Instruction Set for Interoperable Brain-Inspired Computing** *arXiv*
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- **Energy Estimates Across Layers of Computing: From Devices to Large-Scale Applications in Machine Learning for Natural Language Processing, Scientific Computing, and Cryptocurrency Mining**
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