



# AI INNOVATION INSTITUTE

**S**tony Brook University's AI Innovation Institute (AI3) remains at the forefront of artificial intelligence research, advancing AI technology, education, and societal impact. The institute fosters a collaborative, interdisciplinary environment for groundbreaking research, offering comprehensive support and training across the university and the broader New York State community.

AI3 has three key thrusts:

- **Research:** exploring diverse, thematic areas led by faculty with funding success and innovation at their core.
- **AI Services:** providing essential resources, tools, training, and consulting services to faculty and regional stakeholders, supporting AI applications and collaborative research efforts.
- **Education and Equity:** supporting AI in education, facilitating equitable access to AI technology, and ensuring its trustworthy deployment.

## EDUCATIONAL PROGRAMS

- MS in Data Science**
- PhD in Data Science**
- MS Concentration in Data Science and Engr.**
- MS in Engineering of AI**
- BS Specialization in AI and Data Science**

## RESEARCH INITIATIVES

- AI in Neuroscience** Multiscale neural modeling through imaging and machine learning
- AI in Cancer** Digital pathology for improved medical diagnosis and treatment
- Trustworthy AI** Improving computer security and the interpretability of machine learning
- AI in Energy and Sustainability** Renewable energy, grid optimization, zero carbon
- AI in Precision Medicine** Designing targeted drug therapies
- AI in Psychology** Modeling for improved learning, reasoning, and problem-solving capabilities



## EDUCATIONAL AND WORKFORCE TRAINING INITIATIVES

**240+** students enrolled in AI courses, including the new AI specialization

**250+** undergraduate students enrolled in AI courses including the concentration program in data science and engineering

**70+** Ph.D. students working closely with AI faculty on collaborative and core research

**60+** core and affiliated faculty across departments at Stony Brook University

**Alumni** working at major AI companies, including Amazon, Google, IBM, Meta, Microsoft, Nvidia, and OpenAI



## RESEARCH HIGHLIGHTS

More than \$20 million in funding, including:

**4.2M** DARPA grant: AI for real-world understanding

**4.3M** NIH grant: Understanding the neurobiology for Alzheimer's disease with AI

**3.2M** NIH grant: Improving fetal monitoring with artificial intelligence

**1.7M** NSF grant: Developing technology universally applicable in diverse industrial fields requiring robotic manipulations

**1.5M** NSF grant: Personalize caregiving robot assistants for people with ALS

**NSF** Major Research Instrumentation grant to build AI Computing Infrastructure



## RESEARCH COLLABORATIONS

**EMPIRE AI**  
**SUNY EMPIRE INNOVATION PROGRAM**  
**SUNY STRIVE**  
**SUNY-IBM AI RESEARCH ALLIANCE**  
**BROOKHAVEN NATIONAL LABORATORY**

For more information, visit  
[ai.stonybrook.edu](https://ai.stonybrook.edu)

“ Join us in driving AI innovation and diffusion into nearly every industrial, societal, and scholarly sector, tackling some of the biggest challenges of our time. ”

**LAV R. VARSHNEY, INAGURAL DIRECTOR**

