



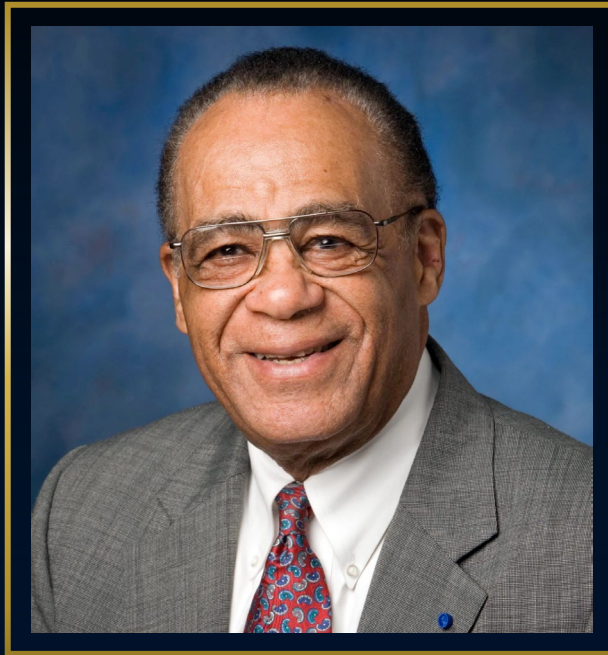
DIRECTOR'S REMARKS

NATIONAL SCIENCE BOARD MEETING

Sethuraman Panchanathan, National Science Foundation

February 21, 2024

IN MEMORY OF...



JOHN BROOKS SLAUGHTER

NSF DIRECTOR - 1980 TO 1982

1934 - 2023



EDDIE BERNICE JOHNSON

HOUSE SCIENCE COMMITTEE CHAIRWOMAN

1934 - 2023





NSF'S STRATEGIC PRIORITIES

STRENGTHENING ESTABLISHED NSF

With **investments that expand the frontiers of knowledge and discovery**

INSPIRING MISSING MILLIONS

Using **capacity building and interventions** that enhance and broaden participation

ACCELERATING TECHNOLOGY AND INNOVATION

Through innovative, **cross-cutting partnerships** and programs





KYLE JOHNSON

STUDENT, GRFP FELLOW

Computer Science & Engineering
University of Washington
Advisor: Prof. Vikram Iyer



Paul G. Allen Family Foundation Awards

- NSF and Paul G. Allen Family Foundation collaboration: ***Partnership to Advance Conservation Science and Practice*** (PACSP)
- In 2023, an **\$8M** co-investment supported **6 projects**
- Aims to develop **science-based conservation** plans and tools to **advance biodiversity** conservation efforts



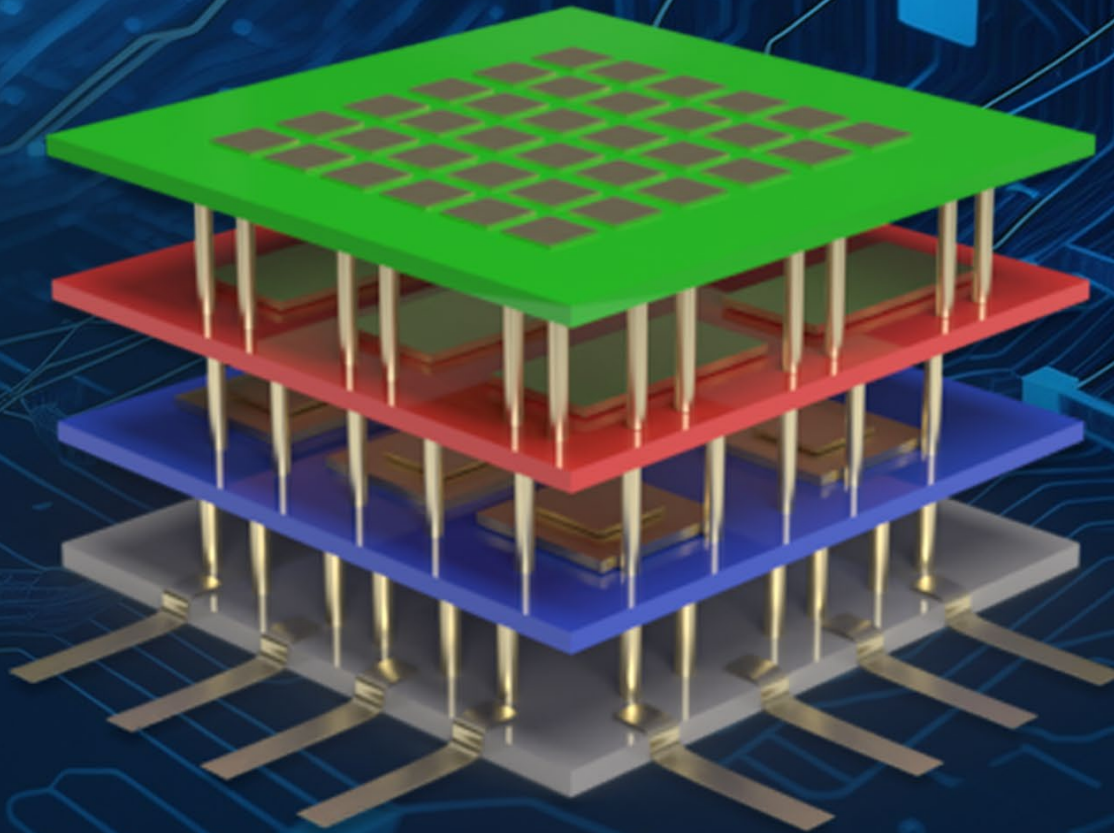
PAUL G. ALLEN
FAMILY FOUNDATION





- **San Diego Zoo Wildlife Alliance and Iowa State University** working to enhance desert tortoises' resilience to climate change
- **Success of PACSP** spurred new collaboration between NSF and Kavli Foundation
- **Neurobiology in Changing Ecosystems (NiCE)** aims to inform or predict resilience in related neural mechanisms, organisms, or environments



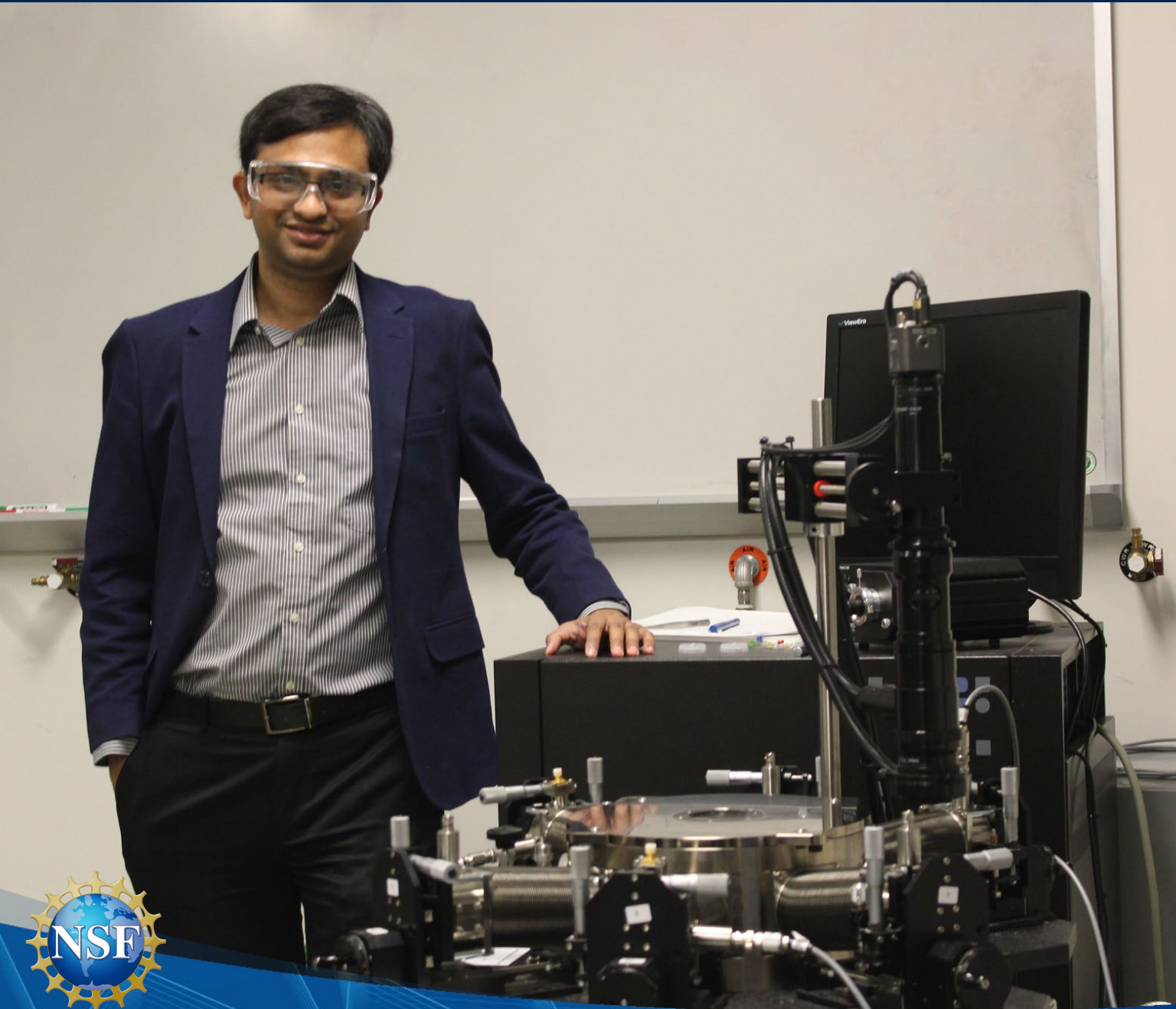


NSF Researchers

"get more from Moore's Law"

- Penn State researchers advance 3D semiconductor integration with 2D materials to reduce chip size and boost computer power and efficiency
- Breakthrough could enable computer chips that are faster, smaller, and with additional capabilities
- New functionalities include improved sensors and enhanced battery management





NSF Materials Innovation Platform

- Mid-scale infrastructure program accelerating advances in materials research
- Fosters team-based, highly integrated research, education, and training
- Creates a network of researchers sharing resources and knowledge to expedite discoveries and application



INSPIRING MISSING MILLIONS

GEO BROADENING PARTICIPATION OVERVIEW



Image credit: Josh Wurman, CSWR



Image credit: OOI



Image credit: Amber Johnson, Chris Arend Photography



Image credit: Bob Hallinen, ADN



Image credit: Allison Heaslet, Alaska Native Science & Engineering Program



Image credit: Courtesy of NEON operated by Battelle





Dr. Anita Marshall
UF Department of Geological Sciences
GeoSPACE Founder



Empowering Individuals



**Faculty Development in geoSpace Science
(FDSS)**



**Pathways into the Earth, Ocean, Polar and
Atmospheric & Geospace Sciences
(GEOPATHs)**



Changing Culture Through Capacity Building



**Cultural Transformation in the
Geoscience Community
(CTGC)**



**Geoscience Opportunities for Leadership
in Diversity – Engaging New scholars
(GOLD-EN)**



Reaching Emerging Institutions



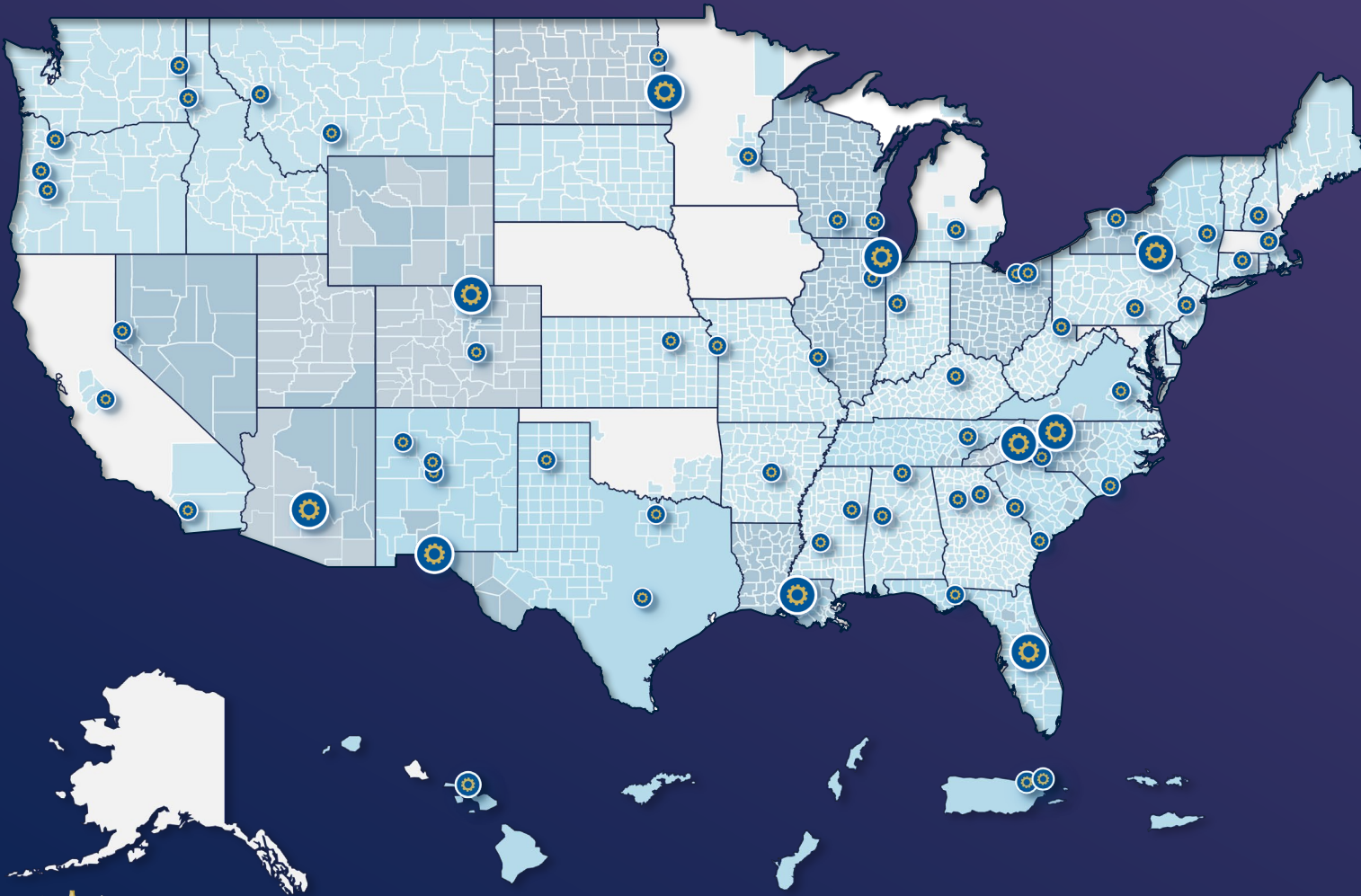
**Paleo Perspectives on Present and Projected Climate
(P4CLIMATE)**



**GEO EMpowering BRoader Academic Capacity and Education
(GEO-EMBRACE)**



ACCELERATING TECHNOLOGY & INNOVATION



10 INAUGURAL NSF ENGINES

- Central Florida Semiconductor Innovation Engine
- Colorado - Wyoming Climate Resilience Engine
- Great Lakes Water Innovation Engine
- Louisiana Energy Transition Engine
- North Carolina Textile Innovation and Sustainability Engine
- North Dakota Advanced Agriculture Technology Engine
- Paso del Norte Defense and Aerospace Innovation Engine
- Piedmont Triad Regenerative Medicine Engine
- Southwest Sustainability Innovation Engine
- Upstate New York Energy Storage Engine





Jill Biden and NSF director talk
'Investing in America'
at Forsyth Tech Community College



“

Joe knows the future of the workforce in America starts in high schools, goes to the community colleges and then into great careers. Today's investment of **\$30M** into the state of North Carolina is going to support that and create jobs of the future.

”

FIRST LADY **DR. JILL BIDEN**
Winston-Salem News



NSF ENGINES: North Carolina

- ⊙ North Carolina Textile Innovation and Sustainability Engine
- ⊙ Piedmont Triad Regenerative Medicine Engine





