

Data Science for Social Good

NSF CISE Programs

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NSF Global Review Criteria

Social Good is Integral

- **Intellectual Merit**
- **Broader Impacts**
 - Promoting Teaching, Training, and Learning; Broaden Participation of Under-represented Groups; Enhance Infrastructure for research and Education; Broad Dissemination to Enhance Scientific and Technological Understanding
 - Benefits to Society – Environment, public policy, health or safety, other public welfare --- e.g. provide tools for policy formulation.

Example NSF Programs

Data-Intensive and Social Good Thrusts

- CISE Core Programs (particularly IIS, CNS)
- Smart and Connected Health
- Big Data
- Robotics
- Secure and Trustworthy Computing (SaTC)
Fellows
- Science, Engineering, and Education for
Sustainability (SEES)



Example CISE Award Topics

CyberSEES

- Citizen Science for Biodiversity and Ecology --- Data exchange standards, strong STEM education component and social science components
- Ocean wave energy integration into power grid --- Modeling, HPC, wireless sensor networks, prediction, optimization, and control.
- Marine adaptation under changes in extreme ocean temperatures --- Statistical machine learning for marine ecology predictions under climate-change.
- Product environmental impact throughout life-cycle.



Example CISE Award Topics (cont'd)

Robotics

- Co-Robust for Surgery
- Co-Robots for STEM

Smart Connected Health

- High-Throughput Phenotyping on HER using Multi-Tensor Factorization
- Detecting Errors in Clinical Laboratory Data

Applying for NSF Funding?

Send email with your one-page Project Summary* to several Program Directors to find the best home.

*See the NSF Proposal Preparation Guide at
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg