

# Potential Champion Fellows Projects - 2020/21

Principal Investigators and staff member institutions are provided here for your information only. These collaborations will largely be conducted remotely; however, the Fellows program does provide travel funding to the site of the XSEDE staff member to kick off and conclude the collaboration.

Although Campus Champions Fellows are not expected to contribute expertise to the projects to which they are matched, they may need a certain skill set in order to tackle higher-level activities during the course of their fellowships. Prerequisite skills, when necessary, are indicated in the table below.

Title	PI	Institution	Consultant 1	Consultant 2	Consultant 3
<a href="#">A Comprehensive Annotator and Web Viewer for scRNA-seq Data, Y1</a>	Guoshuai Cai	University of South Carolina	Choonhan Youn	John Eric Coulter	
<a href="#">A Performant Matrix of Pearson's Correlation Coefficient (MPCC) Calculations with Support for Missing Data on Emerging HPC Architectures, Y1</a>	Jacobus Cornelis Prins	University of Tennessee Health Science Center	Chad Eric Burdyslaw	Robert Glenn Brook	
<a href="#">Automated classification of In Situ Ichthyoplankton Imaging System (ISIS) images using Convolutional Neural Nets on parallel computing infrastructure, Y2</a>	Robert Keith Cowen	Oregon State University			
<a href="#">BayeSNova: The First Bayesian-Powered Search Pipeline applied to Gravitational Wave Searches for Core-Collapse Supernovae</a>	Edo Berger	Harvard-Smithsonian Center for Astrophysics	Chad Eric Burdyslaw	Robert Glenn Brook	
<a href="#">Building a responsible, comprehensive, and practical relational database for oceanographic and ecological data, Y3</a>	Anela Choy	Scripps Institution of Oceanography	Amit Chourasia		
<a href="#">Cyberinfrastructure Resource Integration</a>	Rich Knepper	XSEDE	Rich Knepper		
<a href="#">DATA PROCESSING SYSTEM FOR GENERATING PREDICTIONS OF COGNITIVE OUTCOME IN PATIENTS, Y1</a>	Brad Mahon	Carnegie Mellon University			
<a href="#">DISSCO, a Digital Instrument for Sound Synthesis and Composition, Y4</a>	Sever Tipei	University of Illinois at Urbana-Champaign	Paul Rodriguez		
<a href="#">Diversity of functional genes in deeply branching uncultured microbes, Y1</a>	Andrew Decker Steen	The University of Tennessee, Knoxville	Chad Eric Burdyslaw	Robert Glenn Brook	
<a href="#">Estimating Dynamic Models of the Firm</a>	Toni Whited	University of Michigan	Paul Rodriguez	Robert Sinkovits	
<a href="#">Exploring the full simulation modeling workflow on XSEDE, Y3</a>	Richard P. Signell	US Geological Survey	Christopher Thompson		
<a href="#">Fellows Designed Project</a>	NA	XSEDE	Not Applicable		
<a href="#">Ferromagnetic Resonance dynamics at high microwave powers in low spin-damping Ferrimagnets, Y1</a>	Tao Qu	University of Minnesota			
<a href="#">High-Accuracy Transition Metal Organometallic Database of Thermodynamic Properties</a>	Theresa Windus	Iowa State University	Hang Liu		
<a href="#">Image analysis for digital surrogates of historical motion picture film, Y1</a>	Greg Wilsbacher	University of South Carolina	Alan B Craig		
<a href="#">Improving dark-matter detection through calibrations and automated data quality efforts, Y1</a>	Amy Loren Roberts	University of Colorado, Denver	Andrea Zonca		
<a href="#">Laser-based Structural Sensing and Damage Assessment, Y4</a>	Jerome F. Hajjar	Northeastern University	Dong Ju Choi		
<a href="#">Macromolecular Assemblies Visualization, Modelling and Analysis with UCSF Chimera, Y1</a>	Victor Padilla-Sanchez	Catholic University of America	Rozita Laghaei		
<a href="#">Measuring distances of related data content across multi-domain data, specifically face images and semi-structured text, Y1</a>	Jason Monroe Kinser	George Mason University	Darren Adams	John Urbanic	
<a href="#">Multiscale Climate and Earth System Modeling, Y7</a>	Yang Zhang	North Carolina State University	Brian Joseph Vanderwende		
<a href="#">Nucleation and growth of aerosols with the UK Unified Model, Y1</a>	Hamish Gordon	Carnegie Mellon University	David C. O'Neal		
<a href="#">Numerical study of supersonic turbulent boundary layer drag control and vortex reconnection cascade at high Reynolds numbers, Y1</a>	Fazle Hussain	Texas Tech University	Manu Shantharam		

Occam Bridges Pilot, Y1	David William Wilkinson	University of Pittsburgh	Roberto Gomez		
Print and Probability: A Statistical Approach to Clandestine Publication	Christopher Norton Warren	Carnegie Mellon University	Maggie Yilmaz	Roberto Gomez	Sandeep Puthanveetil Satheesan
Robust Stormwater Management for the Pittsburgh Region, Y2	Kyle Siler-Evans	Rand Corporation	Od Khorgolkhuu Odbadrakh		
Simulating the Physics and Chemistry of Swirling Flames - from Fire Whirls to the Blue Whirl	Elaine Oran	Texas A&M University	Gregory Foss	David C. O'Neal	
Startup Allocation Request for Quantum-Mechanical Investigation of Structure-Property Relationships in Organic Emitters for Efficient Thermally Activated Delayed Fluorescence (TADF), Y1	Seyhan Salman Kececigil	Clark Atlanta University	Vinit Sharma		
Statistical and computational approaches for identifying cell types and classifier genes from massive single-cell RNA-sequencing datasets, Y1	John Ngai	University of California, Berkeley			
The Microbial Genomes Atlas Science Gateway -- MiGA @ XSEDE: A Searchable Database of Prokaryotic Genomes for Taxonomic Identification and Diversity Cataloguing	Luis Rodriguez Rojas	Georgia Institute of Technology	Eroma Abeysinghe	Suresh Marru	
Tractography tool for processing ultra-high-resolution diffusion MRI data of terabytes size, Y1	Fang-Cheng Yeh	University of Pittsburgh	Robert Glenn Brook	Yang Wang	
Validation and uncertainty quantification of virtual simulations of ultrafast magnetic resonance imaging, Y1	Ernesto A B F Lima	University of Texas at Austin	Darren Adams		
Workforce Development: Education	Kate Cahill	XSEDE	Kate Cahill		