

# Computational Science Research Center at San Diego State University

## Computational and Data Science Faculty

**Reza Akhavian, Ph.D.** University of Central Florida, Assistant Professor of Department of Civil, Construction, and Environmental Engineering (Construction Engineering and Management, Internet of Things (IoT), Data Analytics, Machine Learning, Robotics, Cyber-Physical Systems, Building Information Modeling (BIM))

**Ashkan Ashrafi, Ph.D.** University of Alabama, Huntsville, Associate Professor of Electrical and Computer Engineering (Digital and Statistical Signal Processing, RealTime DSP, Biomedical Signal Processing, Fourier Analysis, Direct Digital Frequency Synthesizers, Multivariate Spectral Analysis, Hilbert Spaces, Matrix Theory and Applications)

**Barbara Ann Bailey, Ph.D.** North Carolina State University, Associate Professor of Statistics (Nonlinear Time Series, Dynamical Systems, and Clouds. Visualization of Nonlinear Models. Environmental Monitoring. Population Dynamics and Embryonic Mortality. Model Validation)

**Peter Blomgren, Ph.D.** University of California, Los Angeles, Professor of Mathematics (Image Processing, Wave Propagation in Complex Media, Numerical Solutions of PDEs, Scientific Computing, Nonlinear Dynamical Systems)

**Margherita Capriotti, Ph.D.** University of California, San Diego, Assistant Professor of Aerospace Engineering (Develop novel and efficient tools to characterize aerospace composite structures using wave propagation of different physical nature)

**Chris Curtis, Ph.D.** University of Washington, Assistant Professor of Mathematics (Fluid Mechanics, Modeling and Simulation, Computational Fluid Dynamics and Numerical Simulation)

**Bryan Donyanavard, Ph.D.** University of California, Irvin, Assistant Professor of Computer Science (Runtime Resource Management for Energy-Efficient Execution of Cyber-Physical Systems)

**Uduak George, Ph.D.** University of Sussex, Brighton, UK, Assistant Professor of Mathematics (Mathematical biology, fluid dynamics, continuum mechanics of tissues, morphogenesis, solute transport)

**Jerome Gilles, Ph.D.** Ecole Normale Supérieure, France, Associate Professor of Mathematics (Applied Harmonic/Functional Analysis, Signal/Image Processing, Data driven methods, Functional analysis)

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**Kyle Hasenstab, Ph.D.** University of California, Los Angeles, Assistant Professor of Statistics (Deep Neural Networks, Medical Image Analysis, Interpretability of AI Algorithms, Functional Data Analysis)

**Hajar Homayouni, Ph.D.** Colorado State University, Assistant Professor of Computer Science (Data Quality Testing, Big Data, and Machine Learning)

**Luwen Huangfu, Ph.D.** University of Arizona, Assistant Professor of Management Information Systems (Business Analytics, Public Health, Text Mining, Machine Learning, Data Mining)

**Calvin Johnson, Ph.D.** University of Washington, Professor of Physics (Theoretical and Computational Nuclear Structure and Nuclear Astrophysics)

**Alicia Kinoshita, Ph.D.** University of California, Los Angeles, Associate Professor of Civil Engineering (Hydrologic change in coupled human-natural systems)

**Kai Li, Ph.D.** Syracuse University, Assistant Professor of Computer Science, (FDistributed system security, blockchain network security, cost optimization, cloud storage security)

**Xialu Liu, Ph.D.** Rutgers University, Associate Professor of Management Information Systems (Factor models for multivariate and matrix time series, High-dimensional time series analysis, Functional data analysis, Statistical applications in business, engineering and sciences)

**Xiaobai Liu, Ph.D.** Huazhong University of Science and Technology, China, Associate Professor of Computer Science (Computer Vision, Machine Learning, Computational Statistics and their applications to clinic diagnosis, sports, transportation, surveillance, video games and others)

**Sahar Ghanipoor Machiani, Ph.D.** Virginia Tech University, Associate Professor of Civil, Construction, and Environmental Engineering (Traffic Safety and Signal Operation, Human Behavior Modeling, Connected/Automated Vehicles, Evacuation Modeling Infrastructure-Based Safety Systems)

**Yuezhi Mao, Ph.D.** University of California, Berkeley, Assistant Professor of Chemistry and Biochemistry (Theoretical & Computational Chemistry)

**Marta Miletic, Ph.D.** Kansas State University, Assistant Professor of Civil, Construction, and Environmental Engineering (Geotech Engineering)

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**Christopher Paolini, Ph.D.** San Diego State University, Assistant Professor of Electrical and Computer Engineering (Cyberinfrastructure, Computational Geochemistry and Combustion Science)

**Carlos D. Paternina-Arboleda, Ph.D.** University of South Florida, Assistant Professor of Management Information Systems (Supply Chain Analytics)

**Melody Schiaffino, Ph.D.** University of Florida, Associate Professor of Division of Health Management and Policy (Healthcare Delivery Systems Science, Cancer and Aging, Population Health)

**Anca Segall, Ph.D.** University of Utah, Professor of Biology (The Mechanism of SiteSpecific Recombination; Structure/Function Analysis of Recombination Proteins)

**Ignacio Sepulveda, Ph.D.** Cornell University, Assistant Professor of Civil Engineering (Coastal Hazards, Coastal Engineering, Tsunami Science, Seismology, Stochastic Calculus for Uncertainty Quantification, Remote sensing, Wave Mechanics, Inversions.)

**Arun Sethuraman, Ph.D.** Iowa State University, Assistant Professor of Bioinformatics (Population Genomics, Evolution, Bioinformatics)

**Samuel Shen, Ph.D.** University of Wisconsin, Madison, Albert W. Johnson Distinguished Professor of Mathematics (Statistical Climatology & Agroclimatology, Fluid Dynamcis & Forced Nonlinear Waves)

**Nicholas Shikuma, Ph.D.** University of California, Santa Cruz, Assistant Professor of Biology (Molecular Mechanisms of Bacteria/Bacteriophage/Animal Interactions)

**Jeet Sukumaran, Ph.D.** University of Kansas, Assistant Professor of Biology (Processbased modeling of macroevolutionary dynamics, diversification, and biogeography/phylogeography; species delimitation; host-parasite coevolution, phylogenetics)

**Naveen Vaidya, Ph.D.** York University, Canada, Associate Professor of Mathematics (Applied Mathematics, Mathematical Biology, Disease Modeling, Differential Equations)

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**Satchi Venkataraman, Ph.D.** University of Florida, Professor of Aerospace Engineering (Structural Mechanics, Design Optimization, Composite Materials, Biomechanics)

**Qi Wang, Ph.D.** Johns Hopkins University, Assistant Professor of Aerospace Engineering (Data Assimilation in Turbulent Environments, Adjoint-Based Optimization, Measurement-Enhanced Simulations, Drag Reduction and Optimal Sensor Placement, Pollution Source Localization in Stratified or Non-Stratified Turbulence)

**Wei Wang, Ph.D.** University of Nebraska, Lincoln, Associate Professor of Computer Science ( Cyber-Physical Systems, Wireless Multimedia Networking, Breast Cancer Image Processing)

**Matthew Weingarten, Ph.D.** University of Colorado-Boulder, Assistant Professor of Geological Sciences (Hydrogeology, Geomechanics, Induced Earthquakes, Optimization, Deep Learning)

**Junfei Xie, Ph.D.** University of North Texas, Assistant Professor of Electrical and Computer Engineering (Unmanned Aerial Systems, Networked Airborne Computing, Airborne Networks, Air Traffic Flow Management, Cyber-Physical Systems, Machine Learning & Artificial Intelligence, System Modeling and Control, Complex Information Systems)

**Tao Xie, Ph.D.** New Mexico Institute of Mining and Technology, Professor of Computer Science (High-Performance Computing, Energy-Efficient Storage Systems, Parallel/Distributed Systems, and Security-Aware Scheduling) Yang Xu, Ph.D. Penn State University, Assistant Professor of Computer Science (Cognitive science, computer science, linguistics and psychology)

**George Youssef, Ph.D.** University of California, Los Angeles, Professor of Mechanical Engineering (Mechanical Response of Polymers and Fiber-Reinforced Polymer Matrix Composite Materials, Electro-Magneto-Mechanical Response of Complex Geometry Composite Multiferroic Materials)