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, Irvince, 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 Supeieure, 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)

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)

Antonio Luque, Ph.D. University of Barcelona, Assistant Professor of Mathematics (Applied Mathematics, Biophysics, Physical Virology + theoretical and computational biophysics as well as mathematical modeling, molecular and physicochemical properties of viruses in viral ecology)

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)

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

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

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

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

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)

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

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

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)

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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)

Yang Xu, Ph.D. Pennsylvania State University, Assistant Professor of Computer Science (Natural language processing, machine learning, psycholinguistics, and cognitive sciences)

Ahmad Bani Younes, Ph.D. Texas A&M University, Assistant Professor of Aerospace Engineering (Space research topics: including the development of fast and high fidelity gravity model for the earth anomalies; fast and efficient trajectories propagation for satellite motions; optimal control theory, and, algorithms development for optimization theory, perturbation theory, orbital motion, and very broadly algorithmic differentiation for automatically generating mixed sets of high-order partial derivatives)