Education

- Wright State Univeristy (WSU), Dayton, OH
  - Ph.D. in Computational Science and Mathematics, August 2019.
- California State University Northridge (CSUN), Northridge, CA
  - M.S. in Applied Mathematics, August 2015.
- San Jose State Univeristy (SJSU), San Jose, CA
  - Bachelor of Art in Mathematics, May 2011.

Experiences

- Researcher, RNET Technologies, April 2019 - Present
  - Tensor Contraction and Operation Minimization for Extreme Scale Computational Chemistry.
- Computational Mechanics Intern, Applied Optimization, May 2018 - March 2019
  - Development an in-house solver for the Nonlinear Thermal/Distortion Analysis of Materials.
- Graduate Research Assistant, CSUN-WSU, April 2014-Present
  Mentors: Alex Alekseenko (CSUN), Amit Sharma (WSU), Mohamed Sulman (WSU), Aihua Wood (AFIT)
  - Developing a fast deterministic-stochastic method for computing the Boltzmanns collision operator in $O(MN)$ operations where N is the degree of freedom in the three dimensional velocity space and $M < N$ using a machine learning approach to estimate the Boltzmann's velocity distribution function as a Gaussian Mixtures Model.
  - Developing an efficient solver for numerical modeling of solutions to a system of nonlinear equations that capture the collapse phenomenon of plasmas density in the Ionosphere layer of the Earth.
  - Developing a positivity preserving adaptive moving mesh finite element methods for nonlinear diffusion-reaction-chemotaxis systems of PDEs.

Publications

- M. Sulman, T. Nguyen, A Positivity Preserving Moving Mesh Method for Cancer Invasion Model, J. Computational and Applied Math, (in review).
- M. Sulman, T. Nguyen, A Positivity Preserving Moving Mesh Finite Element Method for the Keller-Segel Chemotaxis Model, J. Sci. Compt., (2019).
- A. Alekseenko, T. Nguyen, A. Wood, A deterministic-stochastic method for computing the Boltzmann collision integral in $O(MN)$ operations, Kinetic & Related Models, Vol 11, 2018.