Feng Gao

gaofeng2@msu.edu
Phone: 517-575-5686
3839 Hunsaker Dr., East Lansing, MI

EDUCATION

- **Ph.D., School of Computational Mathematics, Science, and Engineering, 3.6/4.0**   May, 2016 – Jun, 2019 (expected)

  Michigan State University, East Lansing, MI

- **Ph.D., Department of Plant, Soil and Microbial Sciences, 3.6/4.0**   Sept, 2014 – Jun, 2019 (expected)

  Michigan State University, East Lansing, MI

- **B.S., School of Chemistry and Chemical Engineering, 85/100**   Sept, 2010 – Jun, 2014

  Nanjing University, Nanjing

RESEARCH EXPERIENCES

- **Research Assistant**, Michigan State University, East Lansing, MI   Sept. 2014 – present

  Deep neural network in prediction of organic compounds toxicity (TensorFlow)

  - New feature selection methodology using molecules represented by 3D graph

  - Application of home-made artificial neural network

  Artificial neural networks modeling of molecular energies prediction (Torch, Python)

  - New molecular descriptor based on wavelet transform

  - Dealing with over 100,000 compounds with GPU computing

- **Research Assistant**, Nanjing University, Nanjing   Jan. 2013 – Jun, 2014

  Monte Carlo simulation of the influence of sequence length on the crystallization of polymers (C Programming)

  - Home-made Monte Carlo simulation programs

  - Parallelization of programs using OpenMP

  Theoretical research and Modeling of modified activate carbons and the adsorption of Hg

  - Gained knowledge of using UNIX system and writing shell scripts

SELECTED PROJECTS

- **Parallel computing and profiling for molecular dynamics simulations: an MPI approach**

  - Keywords: Message Passing Interface(MPI); Parallel Computing; Profiling

  - Comparison of atom decomposition and spatial decomposition methods for MPI

  - MPI communications analyzed by Multi Process Environment and visualized by jumpshot

- **Analysis and visualization of Amazon video game data (MySQL)**

  - Keywords: Visualization; Network analysis; Gephi

  - Visualization of customers' buying habits using networks

  - Raw data preprocessing for further analysis: missing data, inconsistent attributes etc.

AWARDS

- Mary Lou Gast Graduate Fellowship (East Lansing, 2016)

- Third Grade Award of People's Scholarship (Nanjing, 2011-2013)