JIASHUO TONG

209 E University Avenue, Champaign, IL, 61820 ◇ jtong8@illinois.edu ◇ diditong.github.io

EDUCATION

The Ohio State University, Columbus, OH *Aug. 2014 - May 2015*
University of Illinois Urbana-Champaign, Urbana, IL *Aug. 2015 - May 2018*
B.S. in Engineering Mechanics Cumulative Undergraduate GPA: 3.86
University of Illinois Urbana-Champaign, Urbana, IL *Aug. 2018 - May 2020*
M.S. in Mechanical Engineering, concentration in CSE Current GPA: 3.87

PROJECT EXPERIENCE

Deep Learning Software for Partial Differential Equations Jul. 2019 - Current
Graduate Research Project under Prof. Justin Sirignano

- Developed effective software that solves different mathematical equations based on finite element method (FEM) and computational linear algebra.
- Developed a Deep Neural Networks for solving the Burgers' Equation which achieves a high precision and better flexibility than the traditional numerical methods, i.e., finite element and finite difference.
- Currently working on Deep Learning for solving the Navier-Stokes Equations, the most important equations that describe fluid flow.

Smart Water pH Control System Jan. 2018 - May 2018
Senior Engineering Design Program

- Establish a precise mathematical model for the physicochemical system in the water solution.
- Developed control software which realizes continuous flow and automatic pH control of water.
- Carried out a graphical user interface (GUI) feature to improve the usability of the product.
- Continued to work as the teaching asssistant for the senior design program at MechSE in Fall 2019

Data Analytics on Wettability of Materials Aug. 2017 - Jan. 2018
Energy Transport Research Lab at UIUC

- Collected and analyzed experimental data, and mined on the data to extract critical information.
- Developed a data empowered solution for measuring contact angles at solid-liquid interface.
- Achieved a comparable accuracy as the classical microgoniometry that can be very expensive.
- Work is published in "In Situ Droplet Microgoniometry Using Optical Microscopy" ACS Nano.

LEADERSHIP EXPERIENCE

Managing Senior Design Projects Aug. 2019 - Dec. 2019

- Managed 8 senior design projects, lead student teams through the design process
- Hosted monthly project presentations with project sponsors to examine student team progress

Teaching the class of Computer-Aided Design Jan. 2019 - May 2019

- Developed course on the topic of human-centered design with specialists from UIUC design center
- Taught students CAD techniques using PTC Creo, provided professional advice on product designs

SKILLS

English TOEFL *MyBest* Scores: 114 = R30+S28+L28+W28, GRE: 161(Verb)+170(Quant)+4.0(Writing)
Related Coursework CS 225 Data Structure, CS 374 Algorithms, MATH 415 Linear Algebra, ME 471 Finite Element Analysis, CS 450 Numerical Analysis, CS 547 Deep Learning, CS 411 Database Systems, CS 498 Data Science & Analytics, CS 483 Parallel Computing, Coursera Machine Learning
Programming Language Framework Python (Advanced), C++ (Advanced), MATLAB (Advanced), C (Intermediate), Java (Beginning), PyTorch (Advanced), Tensorflow (Intermediate)