Yuxuan Liu

DOB: 04/30/1994   Email:liuyx430@gmail.com

EDUCATION

NORTHEASTERN UNIVERSITY   **Boston,MA,USA**   **09/2016–06/2018**

Mechanical Engineering, MS

UNIVERSITY OF CALIFORNIA, RIVERSIDE   **Riverside,CA,USA**   **09/2015–06/2016**

Mechanical Engineering, EXCHANGE

HUAZHONG UNIVERSITY OF SCI & TECH   **Wuhan,CHN**   **09/2012–06/2016**

Mechanical Engineering, BS

PUBLICATION

- A. Lee, K. Hakes, **Y. Liu**, M.R. Allshouse, and J. Crocket, "Evanescent to propagating internal waves in experiments, simulations, and linear theory." *Submitted to Experiments in Fluids (2019).*

- A. Lee, K. Hakes, **Y. Liu**, M.R. Allshouse, and J. Crocket, "Simulations, experiments, and linear theory with four density profiles and four topographies." *In preparation.*

- A. Taqiedin, **Y. Liu**, A. N. Alshawabkeh, and M.R. Allshouse, "Computational modeling of bubbles in reactive flows using the Coupled Level Set-Volume of Fluid method." *Submitted to Fluids (2019).*

RESEARCH

Computational modeling of bubbles in reactive flow   08/2019-Present

- Assisted with performing multiphase simulation using coupled level set/volume of fluid method.

- Solved issue on species transportation through bubble interface in reactive flow.

Internal tide generation   01/2018-Present

- Learning numerical simulation for stratified fluid under instruction of Professor Michael Allshouse.

- Implemented high fidelity solver in Openfoam, comparing result with in-house code.

- Cooperate with another research group in Brigham Young University, study experiment data from laboratory-scale system.

PROJECTS

UC Riverside Senior Design — Intelligent Monitoring and Real-Time Sampling &   01/2016-05/2016
Analyzing System for Combustion Process in Closed Environment

- Combined knowledge in mechanics of materials, mechanical and control principles, and engineering chemistry, to design equipment track, automatic monitoring device, and sampling and analyzing device for combustion experiment in lab.

- Learning programming for motion modules and sensor modules in raspiberry pi.

SKILLS

Language: MATLAB, C/C++, Fortran90

Open-source library/software used: OpenFOAM, CUDA, OpenMPI

RECOMMENDER LIST

Professor Michael Allshouse, Northeastern University, m.allshouse@northeastern.edu

Professor Julie Crockett, Brigham Young University, juliecrockett@byu.edu

EMPLOYMENT HISTORY

R&D Engineer, Shanghai Electric Windpower Equipment Co., Ltd   09/2019-Present

- Development of support structures for floating wind turbine for moderate water depth.

- Assist in statistics&outlook report, journal article&conference paper collection and study.

ACTIVITIES

Department of publicity of the Student Union of HUST Art Troupe, Vice Minister   2013-2014

HUST Campus Symphony Orchestra, flute and piccolo player   2012-2015