CHEN JIONG

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EDUCATION

International Campus of Zhejiang University Haining, China

Bachelor of Engineering, Mechanical Engineering from ZJU and UIUC Aug 2017 – June 2021

- GPA: 3.92/4.00

University of Illinois at Urbana Champaign Champaign, IL

Master of Science, Mechanical Science & Engineering Dept. Aug 2021 – Current

INTERNSHIPS

Carnegie Mellon University Summer Internship in Molecular Dynamics 2020

Student Assistant in Human Resources Department at ZJUI 2018-2019

PROJECTS

Frost Detection and Defrost Control Aug 2021 – Current

Advisor: Prof. Sophie Liu, University of Illinois at Urbana Champaign (ACRC) Champaign, IL

Graduation Project: Federated Learning with Medical Data Feb 2021 – May 2021

Advisor: Prof. Zuozhu Liu, Zhejiang University (Machine Learning) Haining, China

- The project focuses on federated learning with medical data, where we use federated learning framework (a framework for mechine learning methods) on real oral 3D scanned image data set. With the FL framework, we can protect the clients' (patients') privacy while keeping the accuracy and efficiency of the training process.

Anchor-Shaped Surfactants Enhance Evaporation on a Flat Liquid Interface Jun 2020 – Jan 2021

Advisor: Prof. Alan McGaughey, Carnegie Mellon University (Molecule Dynamics) Pittsburgh, PA

- The studied system is LJ liquid with an anchor-shaped surfactant floating on the interface. A previous study showed the possibility that the surfactant enhances the evaporation rate from a flat surface. My job is to find out whether the surfactant improves the evaporation by making the fluid more crystalline, thus reducing thermal resistance. I use the density of state and diffusion coefficient to improve our understanding of the system.

ROS Robot Aug 2019 - 2020

Advisor: Asst. Prof. Cui Jiahuan, ZJUI (Fluid Dynamics) Haining, China

- We are building a robot that can transfer printed documents from printer to the office. We use Raspberry Pi 3B+ to receive the data from the radar, send the signal to the STM32 board and control the movement of the robot.

Effect of Defects on Thermal Conductivity of Graphene/Epoxy Nanocomposites

3rd Prize, Excellent Summer Research Program in ZJUI, 2019 Feb – Dec 2019

Advisor: Prof. WeeLiat Ong, ZJUI (Molecule Dynamics) Haining, China

- The project examined a defect on graphene and its effect on randomly induced coherent phonon. I investigated and explained the change in thermal conductivity of graphene and built the appropriate graphene model. I calculated its thermal conductivity by simulation with LAMMPS.

Exoskeleton Bipedal Robot Jun – Jul 2018

Advisor: Prof. Ouyang Xiaoping, ZJU (Fluid Dynamics and Electronic Control) Hangzhou, China

- We built an exoskeleton bipedal robot that can apply external forces on the user's foot and enhance walking ability. We designed three models for the exoskeleton bipedal robot and analysed the simulation in SolidWorks to optimize the design.

INTERESTED AREA

Frost detection and defrost control.
Computational Fluid Dynamics.

AWARDS

Second-Class Scholarship of Zhejiang University	2019
Third-Class Scholarship of Zhejiang University	2018
Third-Class Scholarship of Zhejiang University	2017

ADDITIONAL INFORMATION

Computer Skills: Creo PTC, SolidWorks, MATLAB Simulation, LAMMPS, Python, MATLAB, ROS
Interests: Badminton, tennis, and rugby