

Zhangsihao Yang

Room F3, 5726 Beacon St, Pittsburgh, PA 15217, USA

Email: zhangsiy@andrew.cmu.edu

Mobile: +1-412-403-6635

Education Background

Carnegie Mellon University (CMU)

Master of Science in Mechanical Engineering

08/2017-05/2019

- Advisor: Levent Burak Kara
- QPA: 3.96/4.00 TOEFL: 105 GRE: Verbal 152 Quantitative 170 Analytical Writing 3.5

Zhejiang University (ZJU)

Energy & Environment Systems Engineering-Bachelor of Engineering

09/2012-07/2016

- GPA: 3.92/4.00

Professional Experience

Deep Learning on 3D Geometry

Research Assistant

08/2017-10/2018

- Supported by ‘Functionally-Based Conceptual Design through Data-Driven Shape Analysis for DARPA FunDesign’
- Utilize deep learning to discover latent features underneath the 3D shape model
- Design process to determine optimal shape through simulator reviewing over new structures
- Advised by Levent Burak Kara.

Combustion Characteristics of Oxygen Containing Liquid Biofuels

Researcher

09/2015-06/2016

- Simulated the laminar flame speed of liquid biofuels via CHEMKIN; measured the laminar flame speed by heat flux method
- Analyzed the stimulated data and experimental data; completed a 20,000-word thesis

Photo-catalysis Sewage Treatment System

General System Designer

06/2014-08/2015

- Used BiOBr as the photo-catalyst and recycle it by free settling
- Designed the dynamical system and automatic control system to monitor sewage in real time so as to control the sewage flow automatically and to save manpower
- Won the second prize in the Energy Saving & Emission Reduction Contest for National College Students
- Obtained a Chinese patent with this system (patent number: 201510471612)

Industrial Exhaust Gas Treatment by Plasma Technology

Team Leader

09/2013-09/2014

- Supported by Students Research Training Program
- Researched the application, main scientific problems, mechanism and degradation process of volatile organic compounds (VOCs) purification treatment by low-temperature plasma technology; won the Excellent Rating

Publication

- **Zhangsihao Yang**, Haoliang Jiang, Lan Zou, “3D Conceptual Design Using Deep Learning”, *Computer Vision Conference* 2019
- Wentai Zhang, Haoliang Jiang, **Zhangsihao Yang**, Soji Yamakawa, Kenji Shimada, Levent Burak Kara, “Data-driven Upsampling of Point Clouds”, submitted to *Computer-Aided Design*
- Wentai Zhang, Jonelle Z. Yu, Fangcheng Zhu, Yifang Zhu, **Zhangsihao Yang**, Nurcan Gecer Ulu, Batuhan Arisoy, Levent Burak Kara, “High Degree of Freedom Hand Pose Tracking Using Limited Strain Sensing and Optical Training”, submitted to *Journal of Computing Information Science Engineering*

Zhangsihao Yang

Room F3, 5726 Beacon St, Pittsburgh, PA 15217, USA

Email: zhangsiy@andrew.cmu.edu

Mobile: +1-412-403-6635

Teaching Experience

Course Assistant

09/2018-12/2018

- Artificial Intelligence and Machine Learning for Engineering Design (24-787), Fall 2018.
- Set up the grading rubric; Graded homework; Counselling project teams with feasibility and topic choosing and possible
- Design an assignment to implement GAN

Extracurricular Activity

“Innovation and Entrepreneurship” Summer Camp

Team Leader of ZJU

07/2016-07/2016

- Wrote the parts of budget and cost analysis of the business plan
- Finished the business plan with students from The Hong Kong Polytechnic University and National Chengchi University

Academy Presidents’ Forum of ZJU

Organizer

12/2015-01/2016

- Booked event fields in advance; contacted related personnel and arranged the forum schedule; listened the suggestions from every academy president and summarized them for school leaders so as to solve the students’ problems in daily life and in study

Visiting Group to the University of Oxford and the University of Cambridge

Member

08/2013-08/2013

- Took classes to learn the history of the United Kingdom; visited the campuses; lived in the dormitory of the University of Oxford and the University of Cambridge

Awards

- Title of ZJU Outstanding Graduate **06 /2016**
- Title of Merit Student; Third-class Academic Scholarship; Third-class Merit Scholarship **11 /2015**
- Second prize in the National University Student Social Practice and Science Contests on Energy Saving & Emission Reduction **08 /2015**
- First-class CEN Kefa Scholarship (the highest honor for students at College of Energy Engineering); Title of Merit Student; Second-class Academic Scholarship; Second-class Merit Scholarship **11 /2014**
- Title of Merit Student; First-class Academic Scholarship; First-class Merit Scholarship **11 /2013**