## Zhen Yang

#### PRESENT ADDRESS

PERMANENT ADDRESS

Macdonald Engineering Building, McGill University Montreal, QC, Canada H3G 0E6 (438)-5232226

1211 Drummond Montreal, QC, Canada H3G 0E6

## **EDUCATION**

McGill University, Montreal, Canada Ph.D, Mechanical Engineering (advisor:Dr.Jianyu Li) September 2019-present Major, Solid Mechanics, Soft Material

University of Alberta, Edmonton, Canada M.Sc., Mechanical Engineering (advisor:Dr.Tian Tang) January 2017-January 2019 Major, Solid Mechanics, Adhesion G.P.A. 3.9/4.0

University of Alberta, Edmonton, Canada B.S., Mechanical Engineering September 2012-December 2017 G.P.A. 3.7/4.0

#### RESEARCH EXPERIENCE

Ph.D. Student McGill University Fall 2019-Present

Supervisor: Dr.Jianyu Li Mechanical Engineering

Montreal, Canada

Project: Mechanically Active Adhesives Capable of Stimuli-controlled Adhesion

University of Alberta Research Assistant January 2019-August 2019

Superviosr: Dr. Tian Tang Mechanical Engineering

Edmonton, Canada

Project: Bio-Inspired Interfaces for Easy-to-Recycle Lithium-Ion Batteries.

M.Sc. Student University of Alberta January 2017-January 2019

Supervisor: Dr. Tian Tang Mechanical Engineering

Edmonton, Canada

Project: Asymmetric Complementary Interface for Enhanced Directional Adhesion.

### TEACHING EXPERIENCE

Marker McGill University Fall 2019

Instructor: Dr.Jianyu Li MECH 574 Mechanics of biological materials

Duty: Grading assignments and preparing solutions.

Teaching Assistant University of Alberta Summer 2019

Instructor: Dr.Tian Tang ENPH 131 Mechanics

Duty: Created questions for the course seminars and developed a Python-Latex based program to automatically generate different seminar versions based on different combinations

of the questions.

Teaching Assistant University of Alberta Winter 2019

Instructor: Dr. Hossein Rouhani MECE 362 Mechanics of Machines

Duty: Organized, taught seminars, and marked seminar quizzes.

Teaching Assistant University of Alberta Summer 2018

Instructor: Dr.Chongqing Ru MECE 250 Engineering Mechanics II

Duty: Organized, taught seminars and marked seminar quizzes.

Teaching Assistant University of Alberta Winter 2018

Instructor: Dr.Chun Il Kim ENPH 131 Mechanics

Duty: Organized seminars, answered students' questions and marked seminar quizzes.

Teaching Assistant University of Alberta Fall 2017

Instructor: Dr.Ben Jar MECE 362 Mechanics of Machines

Duty: Organized, taught seminars and marked assignments and seminar quizzes.

#### HONORS AND AWARDS

2020 McGill Graduate Excellence Scholarship

2019 McGill Engineering Doctoral Scholarship (MEDA)

2016 MECE 460 Design Capstone Award, University of Alberta.

2015 First Order Standing in Department of Engineering, University of Alberta.

2014 First Order Standing in Department of Engineering, University of Alberta.

2013 International Student Scholarship (1st renew), University of Alberta.

2012 First Order Standing in Department of Engineering, University of Alberta.

2012 International Student Scholarship, University of Alberta.

2012 University of Alberta Maple Leaf First Year Excellence Scholarship.

2012 University of Alberta Academic Excellence Scholarship.

#### **PUBLICATIONS**

- Congrui Jin\*, Zhen Yang, Yongfeng Liang, Jianlin Li, Yijing Zheng, Wilhelm Pfleging, Tian Tang\*. "Bio-Inspired Interfaces for Easy-to-Recycle Lithium-Ion Batteries", Extreme Mechanics Letters (2019) 100594.
- 2. **Zhen Yang**, Congrui Jin, Tian Tang\*. "Asymmetric Complementary Interface for Directional Adhesion", International Journal of Solids and Structures. Accepted.
- 3. Zhenwei Ma, **Zhen Yang**, Guangyu Bao, Amin Valiei, Fan Yang, Ran Huo, Dongling Ma, Jianyu Li, TBD, 2020.

#### **CONFERENCES**

- 1. **Zhen Yang**, Tian Tang, Directional Adhesion Enabled by Asymmetric Complementary Interface. 27th Canadian Congress of Applied Mechanics, 2019.
- 2. **Zhen Yang**, Poster Presentation at Faculty of Engineering Graduate Research Symposium, 2018, University of Alberta.

#### AOMPUTER SKILLS

CAD Software: Solidworks, AutoCAD

CFD Software: Ansys-CFX

Finite Element Software: ABAQUS, Comsol

Programming: PYTHON, MATLAB, MATHMATICA

Text Editor: Emacs (spacemacs)

# EXPERIMENTAL SKILLS

Tough Hydrogel Synthesis Instron Testing Machine Laser Cutter