Rongxiang Zhang

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Education Background

University of Pennsylvania, Philadelphia, PA Expected 06/2023

Major: Electrical Engineering | Degree: Master of Science in Engineering

Concentration GPA: 4.0/4.0 | Cumulative GPA: 3.6/4.0

Relevant course: Brain-Computer Interface (Machine learning in Signal Processing), Engineering Economics and Data Analyzing, Nanoscale Science and Engineering, Networks and Protocols, Advanced Robotics

Royal Melbourne Institute of Technology (RMIT), Melbourne, Australia 07/2019-06/2021

Major: Mechanical Engineering | Degree: Bachelor of Engineering (Honor)

Cumulative GPA: 3.8/4.0

Shandong University, China 09/2017-06/2019

Major: Mechanical Engineering | Degree: Bachelor of Engineering

Cumulative GPA: 3.8/4.0

Computer Skills

Programming language

Python, Excel, MATLAB, Solidworks, CATIA, FLUENT

Professional Experience

The Wharton School, Philadelphia, PA 05/2022-08/2022

Information Technology Assistant at Wharton Computing

- Experienced in executing multiple system failure solutions (include Microsoft, Mac OS) and software testing.
- Provided 200+ professors with the technical support and software training (over 94% satisfaction).
- Been familiar with the performance of the latest electrical devices and the installation process.

DEUTZ-FAHR, Shandong, China 11/2019-03/2020

Mechanical Design Engineer

- Collaborated with a 6 people team to build models of the tractor engine using CAD.
- Participated in the whole process of the engine components design, the maximum power of the diesel engine has been increased by 7% without sacrificing maximum operating time.

Project Experience

Neuroengineering and Brain-Computer Interfaces 01/2022-05/2022

Advisor: Prof. Brian Litt

- Buit a model to predict the movement of the five fingers and realized the function of manipulating the mechanical hand by simple ECoG signal changes, with only two features selected, achieved 60% accuracy.
- Our team won the top 5 places in the competition.
- Independently published the paper Virtual Reality Games based on Brain Computer Interface on ICHCI 2020, and submitted to IEEE Explore, EI CompendeX, and Scopus for indexing.

Computational Fluid Dynamic Modeling in Human Respiratory Airways 03/2020-11/2020

Advisor: Dr. Lin Tian

- Developed computational fluid dynamics model of the respiratory tract by computational analysis software.
- Analyzed the simulation results to show the deposition of particles in the human respiratory tract.
- Observed the particles deposition distribution characteristics in the human respiratory tract, and to make medical recommendations based on the simulation results.

MATLAB Structural Analysis and Design of a Crewed Lunar Lander 09/2019-11/2019

Advisor: Prof. Raj Das

- Calculated the fuel required for a mission of a lunar lander from the low lunar orbit, the Moon surface.
- Designed and optimized the structure of the lunar lander and reduced its fuel consumption by 67% compared with Apollo 11.