Mr Xiaotong Li

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EDUCATION BACKGROUND

Nanjing University of Aeronautics and Astronautics   09/2019-06/2023

Major:Aircraft Design and Engineering (Excellence Program)

Degree:Bachelor of Engineering

GPA: 89/ 100

Graduation Dissertation: Gradient Enhanced Neural Networks for Optimization of Airfoils

Technology University of Delft   09/2023-07/2025

Major: Robotics

Degree:Master of Science

Public Exams: IELTS:7.5, GRE: 328+3.5

INTERNSHIP

Beijing, BJROBOT Technology Co. Ltd.   04/2023-05/2023

Position: ROS Assistant Engineer

Working Contents: Develop TurtleBot3 to do mulitiple missions(reduplicate the function of Autorace)

INTERNATIONAL EXPERIENCE

KAIST, Human-Robot Interaction Research Center(Summer Camp)   07/2022

Focus: Soft Pneumatic Actuators

Learn how to design a soft pneumatic gripper and its control method.

RESEARCH EXPERIENCES

04/2022-06/2022   **Participant, MISSION 9 of the International Aerial Robotics Competition (IARC)**

- Responsible for flight control test and its optimization.

04/2022   **Participant, RoboCup China Open**

- Responsible for establishing point clouds for the depth information read by the depth camera and performing plane extraction and calculation of characteristic shapes
- Won the second prize

03/2022-03/2023   **Leader, Gradient Enhanced Neural Networks for Optimization of Mars Low Reynold Number Airfoil**

- Calculated aerodynamic parameters of airfoils at different angles of attack, Ma numbers and Re numbers
- Constructed mSANN with TensorFlow using aerodynamic parameters and corresponding gradient information as training samples
- Optimized mars low Reynolds number airfoil design by using mSANN as a surrogate model coupled with gradient optimization software package SNOPT

08/2021   **Participant, RoboMaster2021 Super Match Play Competition (Central Division)**

- Responsible for the function realization of radar station, that is, using yolo model to identify enemy robots and mark them on our map
- Won the second prize

04/2021   **Leader, The 6th Jiangsu Provincial Engineering Training Comprehensive Ability Competition for College Students**

- Drew the aircraft model and calculated the aerodynamic characteristics with fluent, and produced simulation animations with 3DMax
- Won the second prize

03/2021-03/2022   **Leader, Dynamic Formation Transformation and Obstacle Avoidance of Unmanned Vehicles**

- Realized autonomous obstacle avoidance based on slam and multi-vehicle communication through wireless networking, mainly implemented the control of unmanned vehicle through ros system
- Realized mapping and navigation functions with ros, and and conducted simulation tests with gazebo
- Nominated to the 15th National College Student Innovation and Entrepreneurship Annual Conference

03/2021-03/2022   **Participant, Research on Positioning and Identification Methods of Logistics Sorting Robot**

- Implemented the autonomous object sorting of a logistics robot based on slam, machine vision and neural network
- In charge of slam mapping, production of training sets and training the neural network to recognize the specified objects

11/2020   **Participant, RoboCup China Open**

- Enabled the robot to identify the hole positions on a transparent acrylic plate with the visual recognition system (openmv)
- Won the third prize

08/2020   **Participant, RoboMaster2020 Super Match Play Competition (Online)**

- Participated in the design and drawing of the mechanical structure of the robot,and learned the overall process of making the competition robots
- Won the second prize

03/2020-04/2021   **Participant, Small Fixed-wing Attack UAV System**

- Responsible for processing the visual identity system

PUBLICATIONS & PATENTS

- HongYu Chen, Xiaotong Li, Haosheng Li, Bohao Qian, Xiangxiang Li,
  Computer Software Copyright "Unmanned Vehicle Formation Navigation and Formation Switching System 1.0.0"

EXTRACURRICULA ACTIVITIES

10/2021-01/2022   **Assistant, CPC Publicity Department, Nanjing University of Aeronautics and Astronautics**

- Head of the section "Today in the History of the Party"
- Assisted teachers in organizing the preliminary arrangement of administrative activities and classified important policy documents

10/2019-06/2020   **Member, New Media Department, Student Union, Nanjing University of Aeronautics and Astronautics**

- Produced the official push of the wechat public account, took photos and edited videos of large-scale activities

AWARDS & HONORS

- 2022   First Prize of Academic Scholarship, Nanjing University of Aeronautics and Astronautics
- 2021   First Prize of Academic Scholarship, Nanjing University of Aeronautics and Astronautics
- 2020   First Prize of Academic Scholarship, Nanjing University of Aeronautics and Astronautics
- 2021   Second Prize of Outstanding Student Scholarship, Nanjing University of Aeronautics and Astronautics
- 2020   Second Prize of Outstanding Student Scholarship, Nanjing University of Aeronautics and Astronautics
- 2021   Merit Student, Nanjing University of Aeronautics and Astronautics
- 2020   Merit Student, Nanjing University of Aeronautics and Astronautics