

Jiayi Yang

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NEU MS information system

EDUCATION

09/2020 – 07/2024 Tiangong University, Tianjin, China

- Bachelor of Engineering in Electrical Engineering and Automation
- GPA: 3.09/4.00

PRACTICE

07/2023 – 08/2023 State Grid Xiongan New Area Electric Power Supply Company

Intern, Safety Inspector

- Assisted in safety supervision across electric power construction sites, ensuring compliance with established safety standards for electrical installations, systems, and equipment.
- Organized and maintained communication data for project tracking and reporting.

06/2023 – 07/2023 Chinese Academy of Sciences

Research Assistant, MNIST Handwritten Digit Recognition

- Developed and trained AI models for handwriting recognition.

08/2022 – 08/2023 Tianjin Kaiwu Chuangxing Science and Technology Co., LTD

Founder & R&D Design Engineer

- Led the research and development of logistics robots, overseeing project timelines, product production processes, and pre-research initiatives.
- Conducted research and development on robotic hardware and control algorithms to optimize performance.

08/2021 – 04/2022 Internet King USA

Remote Intern, Data Analysis

- Conducted customer data entry and analysis, leading to the development and implementation of a personalized network package ordering plan that enhanced overall customer experience.
- Collaborated effectively with customers to identify and resolve issues, while providing tailored solutions and suggesting process optimizations to streamline workflow.
- Actively engaged in team collaboration and participated in company training initiatives, ensuring the efficient and timely completion of tasks within the department.

06/2021 – 05/2023 Innovation Laboratory of Texas Instruments (TI), Tiangong University

Lab Assistant

- Collaborated with professors to guide undergraduate students in competitions such as the National Undergraduate Electronics Design Contest and the North China Five Provinces University Students Robotics Competition.
- Mentored junior undergraduates on ARM microcontrollers, power electronics, motor control, and the utilization of software tools such as SolidWorks and MATLAB.
- Coordinated event planning and managed laboratory resources effectively.

RESEARCH

04/2023 – 05/2023 RoboMaster University Series (RMU)

- Designed and built a physical drone, developing algorithms to complete the competition in the field, awarded the Third Prize.

12/2022 – 06/2024 China International Internet Plus College Student Innovation and Entrepreneurship Competition

- Led the design and analysis for a wireless dynamic charging system for logistics robots, aimed at enhancing operational efficiency in cluster warehousing, and received the Bronze Award.

12/2022 – 09/2023 MOSS: ROS-based Intelligent Material Robot

- Completed the mechanical structure optimization and developed a closed-

loop control system integrated with intelligent path algorithms using LiDAR, facilitating effective material transportation and contributing to patent applications.

05/2022 – 05/2023 College Students' Innovative Entrepreneurial Training Plan Program (Municipal), Direct Drive Permanent Magnet Motor Control System Design based on Dynamic Wireless Power Transfer Technology (Project No. 202310058058)

- Designed a control system using dynamic wireless power transfer technology, successfully constructing the necessary energy transmission structures and conducting ANSYS simulations.
- Built and debugged power electronic devices.

04/2022 – 05/2023 Logistics Transport Vehicle with Lens Protection Function

- Achieved a utility model patent for an innovative logistics transport vehicle design.

04/2022 – 05/2023 Active Filter System Design for High-Frequency Harmonic Suppression

- Investigated factors affecting filter frequency, performed extensive data acquisition and optimized power electronic components.

03/2021 – 05/2021 North China Five Provinces University Students Robotics Competition

- Developed an art robot capable of performing intricate dance movements with precise coordination and an impressive sense of rhythm, which has been further applied in the realms of human-computer interaction and robotic entertainment, highlighting the innovative potential of robotics in artistic expression and creative endeavors.

ACTIVITIES

08/2023 – 09/2023 Honeywell Training - Tridium Niagara

- Developed a smart park management platform utilizing Niagara.
- Obtained a qualification certificate.

SKILLS

Tech Stack:

- Programming Languages: Proficient in Python and C/C++ for algorithm development and control systems; intermediate knowledge of MATLAB/Simulink for simulation and modeling.
- Robotics & Embedded Systems: Mastery of ROS and embedded development tools (Keil, STM32CubeMX) for independent development and debugging of robot control systems.
- Machine Learning: Solid practical experience with TensorFlow/Keras for building and training machine learning models; basic knowledge of PyTorch.
- Power Electronics & Motor Control: Fundamental understanding of power electronics and motor control algorithms; capable of performing basic circuit design and implementation.
- Data Analysis & Visualization: Strong aptitude for data processing using NumPy/pandas, data visualization with Matplotlib/Seaborn, and database management with SQL.
- Electromagnetic Field Simulation: Basic proficiency in ANSYS (HFSS) for conducting electromagnetic field simulations and optimizations.

Language: Native in Chinese (Mandarin), fluent in English