

EXPERIENCE

Direct Drive Technology

Guangdong, China

Research and Development Engineer Intern

Aug 2023 — Sep 2023 (On-site), Oct 2023 — Mar 2024 (Remote)

- Designed and refined the generative models for UI systems on hardware interfaces, utilizing QT and Python.
- Engineered and evaluated prototype demos, detailing their underlying mechanisms with Fusion 360.
- Engaged collaboratively in the full project lifecycle - from requirements gathering and system design to development, testing, and deployment.
- Monitored project timelines, addressing technical challenges as they arose to ensure adherence to deadlines.
- Authored comprehensive documentation, including detailed technical specifications and user guides, to support project delivery and maintenance.

SIASUN Robot & Automation Co., Ltd

Jiangsu, China

Mobile Robot Project Assistant Intern

Jul 2023 — Aug 2023

- Spearheaded the installation and calibration of robotic systems, significantly enhancing operational efficiency.
- Conducted data collection and analysis, contributing to the development of high-precision robotic functionalities.
- Contributed to the resolution of technical challenges, ensuring robots performed optimally for essential operations.

EDUCATION

University College London, London, UK

Incoming Sep 2024 — Sep 2025

Medical Robotics and Artificial Intelligence MSc

Offer Accepted

- **Major Courses:** Robotic Systems Engineering, MSc Research Project, Artificial Intelligence for Surgery and Intervention, Medical Robotics and Devices, Surgical Data Science

University College London, London, UK

Sep 2021 — Jun 2024

Mechanical Engineering BEng, Minor in Computer Science

Expected First-Class Honours (Average Mark: 70+)

- **Major Courses Studied:** Mathematical Modelling and Analysis, Control and Instrumentation, Programming (Python), Thermodynamics, Fluid Mechanics, Engineering Dynamics, Mechanics of Solid and Structures, Materials, Manufacturing and Designs (CAD Design)
- **Minor in Computer Science:** Programming (Python), Data Science (HTML, CSS, SQL, Flask, Plotly Dash), Applied Software Engineering
- **3rd Year Module:** Dynamics and Control, Advanced Thermodynamics and Fluid Mechanics, Elasticity and Plasticity, Undergraduate Individual Project, Project Management
- **3rd Year Individual Project: *Enhanced Robotic Navigation Using Multi-sensor Fusion*** Elevating indoor robot navigation by fusing LiDAR with camera technology, utilizing ROS2, SLAM, and OpenCV. Aiming to overcome LiDAR's limitations in detecting close-to-floor obstacles. Programming language used are C++ and Python

COMPETITIONS & PROJECTS

UCL Mechathon Competition 2023

London, UK

Leader, CAD builder, Operator

Jan 2023

Sponsored by Autodesk and organized by UCL, the Competition brought together 16 teams to design and build a working robotic prototype of Hydraulic cranes within a 36-hour limit.

- Awarded Silver Medal among 16 competing teams
- Independently designed and built the CAD model using Fusion 360.

JP Morgan Chase & Co. Code for Good Hackathon

London, UK

Front-end Engineer

Oct 2022

Build an NLP-powered search engine for animal testing alternatives using SpaCy and Facebook AI Similarity Search libraries in 48-hour limit.

- Implemented interactive features using Bootstrap 5, HTML5, JavaScript, and CSS3, ensuring a responsive and intuitive user experience.
- Contributed to the project's strategy by aligning the development goals with FRAME (an organization)'s mission.

Voice-Control Robot Program

Jun 2023

Develop a Python-based program for robot voice control, integrating speech-to-text functionalities and machine learning models for efficient real-time command output.

- Built a custom training module for enhancing voice command recognition, and a word embedding script to facilitate natural language understanding in robotic applications.
- This program is fully tested on Ubuntu ROS2 and MacOS.

SKILLS

Python: Proficient

C++: Beginner

JavaScript: Beginner

Git: Proficient

Mandarin: Native

ROS: Proficient

MATLAB & Simulink: Proficient

Fusion 360: Proficient

HTML & CSS: Proficient

English: Proficient