

YUNWEN LI

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🇨🇳 Chinese 🗓 May. 22, 2001 🌐 Personal Website

Education

ETH Zürich (ETHZ)

Sep. 2023 – Now

Ongoing MSc in Robotics, System and Control

Zürich, Switzerland

Focus: Robotics in healthcare

Grade: 5.375/6

Selective Courses: Robot Dynamics, Physical Human-Robot Interaction, Vision Algorithms for Mobile Robots, Mobile Health and Activity Monitoring, Rehabilitation Engineering, Virtual Reality

Course Projects: Heart rate estimation from PPG signals, Activity prediction from sensor signals, Impedance control on Haptic Paddle, Ball balancing with visual feedback

Semester Project: Calibration and Kinematic Optimization of a Robotic Eye-Injection Platform

National University of Singapore (NUS)

Aug. 2022 – May. 2023

Exchange student in Electrical Engineering

Singapore

Focus: Signals & Systems, Robotics

Grade: 5/5

Selective Courses: Signal Analytics, Feedback Control, Autonomous Robot Systems

Course Projects: Turtlebot3 mobile robot motion control and trajectory planning

The Chinese University of Hong Kong, Shenzhen (CUHK-SZ)

Sep. 2019 – Jul. 2023

Bachelor of Engineering in Electronic Information Engineering

Shenzhen, China

Focus: Computer Engineering, Programming, Microcontrollers, AI & ML

Grade: 3.932/4 **Rank:** 1/101

Course Projects: Service robot navigation according to AR tags, Robot arm picking and classifying colored objects

Thesis: ESP32 Wireless Ad-Hoc Network for Modular Self-Reconfigurable Robots

Research Experience

Calibration and Kinematic Optimization of a Robotic Eye-Injection Platform Jun. 2024 – Oct. 2024

Semester Project at Multi-Scale Robotics Lab | ETHZ | Supervisors: Claas Ehmke, Jasan Zughaibi Zürich, Switzerland

- Calibrated the relative transformation between camera, robot, and mock eye in a robotic eye injection platform.
- Developed an optimization algorithm to refine the robot's kinematic parameters, mitigating errors introduced by 3D printing and assembly.
- Achieved robotic injections into 0.5 mm radius targets using optimized kinematics and transformations.
- Graded 5.75/6.

Internship

Software Engineer Intern

Jun. 2021 – Aug. 2021

Skyworth Electronic Appliance Co., Ltd., Shenzhen

Shenzhen, China

- Utilized Java and Android Studio to assist with the development of Android services and applications to test mobile phone hardware components.
- Collaborated with team members using Git for version control.

Extracurricular Events

Teaching Assistant
Student Teaching Assistant | CUHK-SZ | ETHZ

Sept. 2020 – Now

- Assist with weekly tutorials for courses in Mechanics, Python, Digital Logic and Systems, and Medical Engineering.
- Consistently received high marks in teaching evaluation.

Volunteer
CUHK-SZ | ETHZ

Sept. 2019 – Now

- Provided volunteer services on and off campus.
- Participated in a one-week volunteer teaching program in Meimei Village, Haikou, China in 2021.
- Received Outstanding Social Service Award 2020-21 from Muse College, CUHK-SZ.
- Volunteered at Cybathlon 2024 in Zürich.

Skills

Languages: English (Proficient), Chinese (Native), German (Beginner A2.2)
Programming: Python, Java, C#, MATLAB, C++/C, Verilog, SQL, Latex
Software: LabView, Gazebo, VS Code, Android Studio, Unity, Multisim, Cadence Virtuoso
Systems/Frameworks: Linux, ROS, Git