Shutong JIN

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Stockholm, Sweden

EDUCATION

KTH Royal Institute of Technology   Nov 2022

Machine Learning Doctoral Student   Stockholm, Sweden

Nanyang Technological University   Aug 2021 - Jul 2022

Computer Control and Automation Master   Singapore

GPA:4.75/5.0

Ecole Centrale de Nantes   Sep 2020 - Jun 2021

Signal, Control and Robotics Foundation master   Nantes, France

GPA:5.0/5.0

Wuhan University   Sep 2017 - Jun 2021

Electronic Information Engineering Bachelor   Wuhan, China

GPA:87/100

RESEARCH

- Division: Robotics, Perception and Learning
- Focus: Machine Learning-based methodologies for robotic manipulation with a focus on large-scale cloud-based robotic systems.
- Supervisor: Florian T. Pokorny, KTH Royal Institute of Technology
- Co-supervisor: Erik Elmroth, Umeå University

TEACHING

- DD1420 Introduction to Machine Learning, assistant
- DD2424 Deep Learning, assistant

PUBLICATION

SectionKey: 3-D semantic point cloud descriptor for place recognition in large-scale environments

Shutong Jin∗, Zhenyu Wu∗, Chunyang Zhao, Jun Zhang, Guohao Peng, and Danwei Wang, Fellow, IEEE

IROS2022

WORK EXPERIENCE

Panasonic R&D Center Singapore   May 2022 - Oct 2022

R&D Engineer   Singapore

- Specialize in Mapping & Localization, 3D analysis
- Developed a new visual-based SLAM system using RGBDi

PROJECT EXPERIENCES

SectionKey: 3-D Semantic Point Cloud Descriptor for Place Recognition   Aug 2021 - Present

Dissertation   Singapore

- Proposed the concept of 'SectionKey' and 'candidate center' selection strategy.
- Implemented the ideas and wrote the full program using C++.
- Reached remarkable efficiency compared with other existing popular place recognition algorithms.
- Accepted by IROS 2022.

Supervisor: Prof. Wang Dan Wei, Nanyang Technological University

Landmark Detection on Turtlebot   Jan 2021 - May 2021

Capstone Project   Nantes, France

- Mapped the environment by a kinect turtlebot.
- Wrote the program for detecting ArUco markers and saving their coordinates.
- Wrote the program for controlling the movement of the turtlebot based on user's request.

Supervisor: Dr. Konstantin Akhmadeev, Ecole Centrale de Nantes

Airplane Detection and Recognition   Sep 2020 - Dec 2020

2020 Gaofen Challenge on Automated High-Resolution Earth Observation Image   Wuhan, China
Interpretation

- Responsible for transforming the targets, which are annotated in OBB(Oriented Bounding Box), into HBB(Horizontal Bounding Box) to detect and recognize the airplanes.
- Carried out the identification of the type of aircraft through mmdetection framework for training.

Supervisor: Prof. Yang Wen, Wuhan University

iGuide--- an Intelligent Interactive Shopping Guiding System for Self-service Stores   Feb 2019 - Sep 2020

National entrepreneurship training program for college students   Wuhan, China

- Responsible for realizing and optimizing the method of communication between the terminal and the device.
- Decided the market plan and wrote up the whole business proposal.
- Successfully acquired a patent on interactive guiding system(CN 212460608 U).

Supervisor: Prof. Yi Benshun, Wuhan University

A Personal Robotic Assistant for Feeding   Jul 2019 - Aug 2019

Machine Learning, Robotics and Sensor Networks Summer School   London, UK

- Wrote the program for the Intel RealSense camera to recognize the user's mouth and return the depth information.
- Wrote the program for object tracking in Python.
- Spokesperson and leader of the team.

Supervisor: Dr. Benny Lo, Imperial College London

SOCIAL PRACTICES

NetEase   Jun 2020 - Sep 2020

Intern   Beijing , China

- Responsible for writing programs in C++, test points and maintaining the website.

Mentor: Li Ruijie, NetEase Beijing R&D center

7th CISM Military World Games   Oct 2019 - Oct 2019

Volunteer Department of technology   Wuhan, China

Cardiff University   Jul 2018 - Aug 2018

Big data & High-performance Computing Summer School   Cardiff, UK

HONORS & AWARDS

International Exchange Programs Scholarship in 2020, WHU   Apr 2021

International Exchange Programs Scholarship in 2019, WHU   Nov 2019

Outstanding Volunteer in 7th CISM Military World Games   Oct 2019

Joint Runner-up Project in 2019, Imperial College London   Aug 2019

International Exchange Programs Scholarship in 2018, WHU   Nov 2018

MISCELLANEOUS

- **Language:** English: IELTS: 7.5(L:8.5 R:7.5 W:6 S:7, taken on Sept. 2020) French: Limited working proficiency
- **Skills:** C/C++, Python, MATLAB, LaTex, Git, Adobe Illustrator, Adobe Animate