

# FAN LI

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## 🎓 EDUCATION

**Tongji University**, Shanghai, China

2021.09 – 2024.03 (expected)

*M.Sc. in Mechanical Engineering*

- Main courses: Robotics, Planning algorithms, Pattern recognition

**École Polytechnique Fédérale de Lausanne (EPFL)**, Lausanne, Switzerland

2022.09 – 2023.02

*Exchange study in Robotics*

- Main courses: Convex optimization, Model predictive control

**Tongji University**, Shanghai, China

2016.09 – 2021.07

*B.Eng. in Mechanical Engineering* (Specialization: Mechatronics)

- Granted the honor of **Excellent Graduate Student** in Shanghai (top 3% students from all majors, provincial)
- Seized the **China National Scholarship** (top 0.2%, national) and the Scholarship for Excellence, etc.

## 🧩 PROJECT EXPERIENCES

**LASA lab at EPFL**

Sep. 2022 – Mar. 2023

*Research assistant*

- Proposed a dynamically-feasible collision-free planner for manipulator throwing in constrained environments.
- Proposed heuristic sampling and collision checking methods based on neural implicit representations.
- Developed a toolkit for sample-based dynamic planning, and verified the effectiveness of the method.

**Bosch**

Oct. 2021 – Jul. 2022

*Sensor Fusion R&D Intern*

- Proposed a novel end-to-end method to segment foreground that can impact the traffic and verified in real cases.
- Simulated traffic using Carla and constructed dataset tightly connected to the industrial for training and evaluation.
- Determined the KPI to evaluate the work on bounding box-based dataset to show the safety concept.
- Fused V2X sensors to provide guaranteed regional information for autonomous driving.

**Hesai Technology**

Jul.2020 – Aug.2020

*Perception Algorithm R&D Intern*

- Tested various network frameworks fusing multiple frames for point cloud-based object detection.
- Improved the evaluation tool of OpenPCDet to support Waymo Dataset.

**Vision4Robotics Lab at Tongji Univ.**

Nov. 2018 – Oct. 2020

*Research assistant*

- Researched CF-based methods for UAV tracking. Related works have been published in top conferences.

**Tongji Univ. DIAN Racing Formula Student Electric Team**

Mar. 2018 – May 2020

*Powertrain & Driverless Member*

- Simulated mathematically motor control for independent research and development of the motor.
- Developed a Simscape-based 3-D vehicle model to simulate the motion of 4WD formula racecar.

## ♥ PUBLICATIONS

- *Training-Set Distillation for Real-Time UAV Object Tracking*, **Fan Li**, Changhong Fu\*, Fuling Lin, Yiming Li, and Peng Lu, In ICRA'20 [[paper](#)] [[code](#)]
- *Learning Consistency Pursued Correlation Filters for Real-Time UAV Tracking*, Changhong Fu\*, Xiaoxiao Yang, **Fan Li**, Changjing Liu, and Peng Lu, In IROS'20 [[paper](#)] [[code](#)]

## ⚙️ SKILLS

<b>Programming</b>	Python, Matlab, C++ (basic)	<b>Language</b>	Chinese (native), English (C1), Deutsch (B1)
<b>Libraries</b>	PyTorch, Sklearn	<b>Dev tools</b>	Linux, ROS, Latex