## Chenghao Wen

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## Education Southeast University

2020.9-2024.7.

B.A., Information Engineering,

- Cumulative GPA:3.88/4.00(89.78/100)
- Talents of Entrepreneurship and Innovation Award(2021)

#### University of California, Santa Barbara

2023.9-2023.12.

Exchange Student, Computer Science,

• Cumulative GPA:4.0/4.0

#### University of California, Irvine

2023.6-2023.9.

Summer Research Intern, Computer Science

• Fine-tune SAM supervised by Annie Qu

### Research

## SHSH: Sparse Hierarchical-representation with Synergic Head for LiD-AR Panoptic Segmentation 2024.2-2024.11

- Propose (1): hieratical-representation transformer and (2): cluster-set correction
- Programming and paper draft
- 1st Place in Nuscenes Validation Set, 2rd Place in SemanticKITTI Test Set

#### Closed-Loop Machine Learning for QoE Inference

2023.9-2023.12

- Coded pipelines for diverse data-collection over disparate physical infrastructures
- Applied Trustee for evaluation to guide the closed-loop data collection

#### Segment Any Instance

2023.6-2023.9

- Propose multi-level masks fusion to trigger comprehensive implicit knowledge
- Fine-tune SAM's prompt encoder for instance segmentation
- Consistently improve CenterNet and Mask-DINO based SAM segmentation

#### Distributed Drive Chassis Motion Controller

2021.9-2022.9

- Designed Controller Area Network(CAN) Protocol for multi-sensor signal cooperation
- Designed FPGA and PCB for the instrument display unit

# Noise Filter Neural Network for Electrical Impedance Tomograph Based Bone Fracture Detection 2021.9-2022.9

- Applied MLP on Matlab trained with COMSOL emulation data to filter noise
- Designed FPGA for Electrical impedance measurement

## Leadership SEU Zhishan Intelligent Vehicle Racing Team

Vice Captain, 2022.6-2023.6

- Collaborate with teammates of different majors to design racing vehicles
- Represent undergraduates and graduates in intelligent vehicle competitions.

### SEU Entrepreneurship Practice Association

Vice Chairman, 2021.9 - 2022.7

2022.12

• Hosted lectures and winter camps for more than 40 entrepreneurial teams

# Awards& Fellowship

## Fellowship for national-level research training $project(\mathbf{¥20,000})$

Fellowship Project Leader: Distributed Drive Chassis Motion Controller, 2022.4

## The 17th National College Students Intelligent Car Race Third Place,

• Contributor for perception algorithm

### China International College Students' Innovation Competition Silver Medal of International Projects (Top 2%), 2022.11

• Market Research and System Test for distributed drive chassis controller

## China International College Students' Innovation Competition. Silver Medal of Mainland Projects (Top 0.35%), 2022.11

• Market Research for Steer-by-Wire Chassis Controller.

## The 12th "Challenge Cup" Jiangsu College Inovation Competition Gold Medal, 2022.7

The 13th National College Advanced Mathematics Competition Third Place (Top 3.2%), 2021.12

### Skills

**Deep Learning:** Pytorch for data-parallel and distributed training.

**Programming Language:** Python, C++, Matlab.

Operating System: Linux, Windows.

Hardware Design: STM32, Analog/Digital circuit design and simulator.

Project Management: Github, LATEX,.