

# Haoyu Wang

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<https://whybfu.github.io>

## Education

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Beijing Forestry University (*Bachelor's Degree*)

Beijing, CN   2020 - 2024(expected)

- **Major:** Computer Science and Technology
- **Graduation project:** Driver Fatigue Detection Algorithm Based on Deep Learning
- **Key disciplines:** Python Application(A), Computer Organization Course Design(A), Database System(A), Introduction to Artificial Intelligence(A), Data Structure Course Design(A)

## Internship Experience

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Beijing Huashu Yihui Technology Co., Ltd (Position: Data analyst)

Beijing, CN   March 2024 – current

- Utilizing Python and SQL for the analysis and verification of medical data
- Participating in the development of the medical retrieval system, and enabling various methods to query the database

Shenzhen Zmotion Technology Co., Ltd (Position: Vision Engineer)

Shenzhen, CN   July 2023 – March 2024

- Responsible for using Python for visual positioning, matching, and detection algorithm encapsulation in the company's IDE
- Assisting in function packaging for visual features and creating document for developer

Shanghai Operation Robot Co., Ltd (Position: Software Engineer)

Shanghai, CN   July 2021 – August 2021

- Working on using C++ to debug surgical robots and checking operational status; drafting patent application for endovascular interventional medical robots
- Learning about ROS (Robot Operating System) and assisted mentor in operational checks, completed around 50 command action checks; comparing algorithms for patent writing

## Research Experience

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Driver Fatigue Detection Algorithm Based on Deep Learning (*Graduation project*)

March 2024 – current

- Realizing the analysis of human fatigue states based on YOLOv8-pose and devised a multi-modal evaluation algorithm
- Realizing the analysis algorithm of yawning and squinting based on facial key points detection

Office OA System Based on Mybatis

February 2023 – May 2023

- Developing an integrated database system supporting different SQL languages for mainstream database maintenance
- Involved in template writing and module testing for two SQL dialects and participated in overall system integration

Complex Narrow Components Compartment Structure Detection  
and Removal Operation Robot

June 2022 - August 2022

- Responsible for the perceptron component, including the deep learning-based object detection and the ranging function
- Utilizing YOLOv5 for detection, using coordinate difference between the boxes of the objects to calculate the distance

## Certifications

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Machine Learning, Modeling, and Simulation Principles - Massachusetts Institute of Technology

2021

## Skills

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- **Programming skills:** Java, C++, C, Python, Git, PyTorch, Linux, Latex, Matlab, Labview
- **English Proficiency:** GRE: 323 + 3.5, Q:170, V:153, Test Date: November 16, 2023
- **Databases:** MySQL, SQL Server
- **WebDev:** Html, Css, JavaScript, Vue, ApacheWebServer, TomcatWebServer