Tao Xiang

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Education

Technical University Munich

B. Sc. Informatics

2018.10 - Present | Munich, Germany

Wuhan University of Science and Technology

B. Sc. Mechanics

2016.09 - 2018.07 | Wuhan, China

- school-level first-class scholarship

Skills

Programming

over 5000 lines
- Python
- Java

1000 - 5000 lines
- C/C++
- SQL
- Haskell
- HTML/CSS

less than 5000 lines
- JavaScript
- PHP
- Markdown

Development

basics:
- Web Development
- Wechat Mini-program
- ROS

Data Science

Packages:
- Pandas
- NumPy
- Tensorflow
- Scikit-Learn
- Matplotlib
- openMP
- MPI

Models:
- common ML models
- basic ANN models

Tools

- Git
- VS code
- Jupyter
- Matlab
- Pycharm
- Intellij IDEA
- CLion
- Latex

Language

mother language
- chinese

fluently
- english
- german B2

Projects

Uni

Lab Course: Developing a Resource Planning Platform for Autonomous Vehicles

sem.5

The resource planner computes an architectural proposal based on predefined optimization goals for an autonomous driving vehicle by collecting system properties and AI-based application requirements.

- In a team of two persons.
- developed Kalmen filter in localization unit and object detection in perception unit alone
- developed resource planner jointly
- Github repository: https://cutt.ly/RaRPPfAV

Seminar Course: Computational Aspects of Machine Learning

sem.5

Topic: Machine Learning as a Black Box Solution

- understood the basic pipeline and commonly used algorithms of Auto-ML
- analyzed and compared the differences of various algorithms from a computational perspective
- Grade: 1.3
- paper

Lab Course: Computer Organization and Computer Architecture

sem.2

Topic: Edge Detection

implemented edge detection in pictures using assembly language in the form of three-pes on team.

- deeply understood how pictures are stored in computers
- compared the performance difference between Single Instruction Multiple Data (SIMD) implementation and non-SIMD implementation
- Github repository: https://cutt.ly/edge-detection

Lab Course: Fundamentals of Programming (PGdP)

sem.1

- mastered the Java language and common programming skills
- passed with 2.0 (avg 3.1)
- Github repo: https://cutt.ly/PGdP

extracurricular

CIS Program: Algorithm and Modeling Method in Biomedical Imaging

Feb 2021 - Apr 2021

Topic: Detection of HeLa Cells in brightfield images

- as a developer: implemented data augmentation, LeNet model and visualization
- Github repo : https://github.com/yunshu67/Analysis-of-brightfield-images

LeetCode Practices

sem.5 - Present

- my LeetCode profile: https://leetcode-cn.com/u/yunshu67/
- Github repo of codes: https://github.com/yunshu67/leetcode
- Github repo of algorithms summary: https://github.com/yunshu67/algorithm-notes

Personal Blog Website

sem.5 - Present

- link : https://yunshu67.github.io/blog-taoxiang/