

# 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 repository: <https://cutt.ly/PGdP>

### extracurricular

### Personal Blog Website

sem.5 - Present

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

### LeetCode Practices

sem.5 - Present

solve one algorithm problem every day

- my LeetCode profile: <https://leetcode-cn.com/u/yunshu67/>
- Github Repository
  - codes: <https://github.com/yunshu67/leetcode>
  - algorithm summary: <https://github.com/yunshu67/algorithm-notes>

### Online Courses

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- ALGORITHM AND MODELING METHOD IN BIOMEDICAL IMAGING
- AI工程师-自然语言处理 (NLP)
- 深度学习Tensorflow2.0实战 (Deep Learning)