



# Hurile Borjigin

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## Skills

C++ | Git | C | Machine Learning, Deep Learning | Pandas | Scikit-Learn | SQL | PyTorch | Web development (HTML/CSS, JavaScript) | Cloud Computing (Google Cloud, AWS) | 3D machine learning | Linux | Robotics(Ros + Franka) | OpenCV | Database | Python | Advanced math | Tensorflow | ROS(robot operating system) | Java | Numpy | Natural language Processing | GDPR Studies | MS Office | Terraform / Ansible / Kubernetes / Docker / Jenkins | GNN | Deep Reinforcement Learning | 3D SLAM techniques | Ontology (OWL) | MLOPS

## Education & Training

**Master of Engineering in Data engineering and analysis** | Technical University of Munich | 01/10/2022 - Current

Focused on machine learning, deep learning (including generative models, computer vision, NLP, and reinforcement learning), data engineering, robotics, and the mathematical foundations of machine learning and deep learning.

**Bachelor of Engineering in Software engineering** | Dalian Minzu University | 01/09/2018 - 01/07/2022

Focused on software design and Web Application development, cloud computing, intensive mathematics (statistics, probabilities, linear algebra, and analysis), and basic Machine learning and Deep learning methods.

Studied the fundamentals of wireless networks, mobility models, and AI applications in communication systems.

**Final grade:** 1.7 | **Thesis:** Real-time mask detection(YOLO, SSD) system development applying Pytorch

## Work experience

**Large Language Model Thesis Intern** | Siemens AG | 02/06/2025 - Current | München, Germany

Integrating DAG from raw text with industrial documentation enhances LLM reasoning and reduces hallucinations and parroting.

Developing a SoTA shallow customization method.

Applying ontology learning and Large language models to extract knowledge and improve LLMs' reasoning and complex conceptual problem-solving ability.

Collaborated closely with senior ML/DL/NLP researchers to refine the specific state-of-the-art prompting strategy and design evaluation methods for conceptual reasoning tasks.

**Autonomous driving engineer - Semester Project** | Excellent Driving in Garching | 01/11/2024 - 01/05/2025 | Munich, Germany

Developed multi-sensor fusion algorithms using LiDAR, radar, and camera data which are collected applying ROS2 and further calibrated.

Applied and modified state-of-the-art models such as MS3D, MS3D++, and OpenPCDet for object detection, and further evaluate them with the application of ONNX.

Optimized AI models and compressed data for real-time applications using TensorFlow and PyTorch.

Benchmarked AI models using datasets such as Waymo, KITTI, and proprietary radar data.

Collaborated with cross-functional teams to refine algorithms and enhance performance.

**Remote Machine Intelligence Lab - Semester Project** | Technical University of Munich | 15/04/2024 - 13/08/2024 | München, Germany

Developed robotic and drone control systems using ROS 2, integrating advanced signal processing for enhanced performance.

Conducted simulations in Gazebo to validate control and signal processing strategies for robotic and drone systems.

Programmed teleoperation systems with haptic devices for remote control, focusing on learning from demonstrations and stability analysis.

**Web Developer & Data analyst - Hiwi Job | Technical University of Munich |** 01/04/2024 - 01/10/2024 | Munich, Germany

Developed a web application using Python (FastAPI) for the backend and React for the frontend to visualize underground water storage data on a global map.

Implemented DevOps workflows for continuous development and deployment, leveraging Docker for containerization and scalability.

Integrated a NoSQL database for efficient geospatial data management and retrieval.

Incorporated OpenAI API for intelligent query processing and interactive data insights.

Delivered a responsive, data-driven visualization platform enabling real-time analysis and exploration of environmental datasets.

**Language Skills**

Mother tongue(s): **Mongolian | Chinese**

|         | Understanding |         | Speaking          |                    | Writing |
|---------|---------------|---------|-------------------|--------------------|---------|
|         | Listening     | Reading | Spoken production | Spoken interaction |         |
| Spanish | A2            | A2      | A2                | A2                 | A2      |
| German  | B1            | B1      | B1                | B1                 | B1      |
| English | C2            | C2      | C2                | C2                 | C2      |