Susu Hu

susu.hu@outlook.com | 0049 152 57841966 | Stuttgart, Germany

EDUCATION

Dresden University of Technology, Germany **2019 - 2023**

Master of Science in Computational Modelling and Simulation **GPA 2.1**

Relevant coursework includes machine learning, computer vision, stochastic and probabilities, statistics, data visualisation.

Nanjing Agricultural University, China **2009 - 2013**

Bachelor of Science in Logistics Engineering **GPA 3.2/4.0**

Granted with merit student scholarship. Relevant coursework includes computer science basics, natural science and engineering basics.

EXPERIENCE

Thesis Deep Learning for 3D Registration, NCT Dresden, Germany **Oct 2022 - Mar 2023**

- Implicit representation learning for non-rigid registration

Working student, Fraunhofer IPA, Stuttgart, Germany **Apr 2022 - Sep 2022**

- 3D point cloud keypoints localization
- 2D few-shot object tracking and active learning for image labelling

Working student, Fraunhofer IPMS, Dresden, Germany **Aug 2021 - Feb 2022**

- Neural network quantization for software hardware co-design
- Explore with different architecture, topology and precision level

Working student, Robotron, Dresden, Germany **Jun 2021 - Feb 2022**

- Backend machine learning software development for computer vision tasks such as multi-object tracking for industrial quality control
- Research and evaluate existing methods for chosen tasks and implement with real-life dataset from customers and benchmark results

Project Management, Ford Motor Company, China **2016 - 2019**

Supply Chain Specialist, BSH Home Appliance, China **2014 - 2016**

PROJECTS

Gaussian processes and neural networks **Sep 2020 - Mar 2021**

Dresden University of Technology

- Studied Gaussian processes mathematical theories and implemented convolutional and non-convolutional Gaussian processes on image classification tasks with Python.
- Experimented with second derivative and first derivative optimization methods. Approximated posterior distribution via variational inference method(minimising KL-divergence) and exploited sparse Gaussian processes to improve computation efficiency.

Tractography scientific visualisation **Apr 2020 - Sep 2020**

Dresden University of Technology

- Studied techniques of tractography and implemented scalar and spherical colour mapping on brain fiber tracts based on diffusion measurement of free water in the brain with C++.

SKILLS

Fluent in Python (especially PyTorch, Keras, TensorFlow, scikit-learn, OpenCV, Pandas, etc.), Git, bash. Familiar with Huggingface, Linux, Docker, Microsoft Azure, SQL. Comfortable with C++, R. Basic knowledge of API.

LANGUAGES

English - C1+, German - A2+, Chinese - native speaker