

Susu Hu

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EDUCATION

Dresden University of Technology, Germany 2019 - Now

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 included computer science basics, natural science and engineering basics.

EXPERIENCE

Working student, Fraunhofer IPA, Stuttgart, Germany Apr 2022 - Now

- 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 object tracking for industrial quality control
- Research and evaluate existing methods for chosen tasks and implement with real life dataset from customer and benchmarking 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.
- Compared Gaussian processes learning mechanism and results with that of neural networks.

Tractography scientific visualisation Apr - Sep 2020

Dresden University of Technology

- Studied the 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++.
- Conducted user study to evaluate the performance of chosen colour maps based on ensemble identification, localisation and comparison.

SKILLS

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

LANGUAGES

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