Zhuang Kang

Email ◇ Website ◇ GitHub ◇ LinkedIn

EDUCATION

Universität Münster   Münster
M. Sc. Mathematics   10/2021 - 09/2024

Sichuan University   Chengdu
B. Sc. Mathematics   09/2017 - 06/2021

LECTURES

Lie groups 1,7
Machine Learning
Numerical optimization 1,0
Deep Neural Networks with PyTorch
Building Deep learning Models with TensorFlow
Advanced Numerical Methods and Applications 1,0
Mathematical Image Processing and Inverse Problems
Introduction to Computer Vision and Image Processing

RESEARCH PROJECTS

Blood Cell Cancer recognition with ResNet50 ◇Website   12/2023-01/2024

Applied ResNet50 to image classification tasks, achieved 99% accuracy in 3 epochs.

Built blocks to save all data and checkpoints in Google Drive to avoid training interruption.

Computed Tomography and Bregman method ◇Website   06/2023-12/2023

Applied Bregman iteration to address image restoration problem, including image denosing, CT reconstruction.

Summarized the development of the iterative method in Computed Tomography.

Manifold optimization and its application in image segmentation ◇Website   04/2022-01/2023

Applied Manifold optimization theory to enhance the Active Contour model for image segmentation.

Explored the completeness of the space of all closed curves.

WORK EXPERIENCE

Tutor of Numerical Optimization   04/2023-09/2023

Conducted exercise courses.

Reviewed and corrected exercise sheets and Python codes.

President of SCU Association Union   09/2019-08/2020

Manager of 12 associations in SCU Mathematical institute, responsible for their activity approval, financial management and year-end review.

President of SCU Billards Association   09/2018-08/2019

Organized five university billards tournaments, each with more than twenty participants.

Raised all the funds for these five events through advertising sponsorships.

HONORS AND SCHOOLARSHIPS

Full-Grant scholarship of WWU Münster 10/2021-09/2023

The 2 year scholarship is awarded to exceptionally talented students selected by the Masters Admission Committee. 3 students were selected from 24 applicants.

TECHNICAL STRENGTHS

Computer skills
Junior: Tensorflow, openCV, Python, Skimage, Git, Docker, Google colab, Matlab
Intermediate: AWS Cloud, C++
Languages skills
Native: Chinese
Fluent: English
Intermediate: German