

# JIANG Jiahang

Academy of Interdisciplinary Studies  
(Data Science and Analytics)  
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## Education

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09/2016---06/2020	<b>Nanjing University of Science and Technology</b> Major: Intelligent Science and Technology Average Score: 88.91% (Ranking: 2 <sup>nd</sup> /74)
09/2020---06/2021	<b>Hong Kong University of Science and Technology</b> Major: Big Data Technology GGA: 3.78/4.30
09/2021---present	<b>Hong Kong University of Science and Technology</b> Major: Academy of Interdisciplinary Studies (Data Science and Analytics) Current GGA: 3.71/4.30

## Thesis/Research Experience

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### 1. Macula Fovea Detection Based on Retina OCT Images

- (1) Implemented detection model based on novel features such as "ILM Gradient", "Number of Retina Vein" and "Number of High-reflection Bands".
- (2) Thesis named "*Automated detection algorithm of macular fovea in SD-OCT images*" was accepted by CCML.

### 2. Extraction of Entities and Relations

- (1) Built a seq2seq model based on a joint tagging scheme to do extraction of entities and relations.
- (2) Put forward a new tagging scheme to do emotional-cause pairs extraction.

### 3. Adaptive Learning with Random Smoothing Kernel Hilbert Spaces

- (1) Propose a unified framework based on random smoothing data augmentation that can effectively and adaptively learn a wide range of ground truth functions.
- (2) Derive fast convergence rates for kernel gradient descent, either with early stopping or weight decay.

### 4. Representation Learning

- (1) Adopt linear estimator to prove that augmentation in contrastive learning can help select important features.
- (2) Adopt Momentum Contrastive (MoCo) learning to enhance the consistency during feature matching process in data distillation.

## Teaching Assistant

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DSAA5009 (Spring 2023) - Deep Learning in Data Science  
UFUG1105 (Fall 2023) – Honors Calculus I

## Awards and Honors

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2023 ICSA Honorable Mention Poster Award, 2023.07  
Outstanding Graduate of Nanjing University of Science and Technology, 2020.06  
Third Prize in 5th "Internet+" Entrepreneurship and Innovation Competition, 2019.09  
Third Prize in 10th "Lanqiao Cup" C/C++ Programme Design Match, 2019.03  
Merit Student of Nanjing University of Science and Technology, 2017-2019

Merit Student of Nanjing University of Science and Technology, 2018-2019

First Prize Scholarship of Academic Year 2016-2017

First Prize Scholarship of Academic Year 2017-2018