

# Curriculum Vitae

*Weiguo Pian*

## EDUCATION

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| 2021.11 - 2025.11 | <ul style="list-style-type: none"><li>• Ph.D. in Computer Science, University of Luxembourg</li><li>• Advisor: Prof. Tegawendé F. Bissyandé</li></ul>                                                                         |
| 2018.9 - 2021.6   | <ul style="list-style-type: none"><li>• Master of Vehicle Engineering, Chongqing University<br/>(Collaborative education with the School of Big Data &amp; Software Engineering)</li><li>• Advisor: Prof. Yingbo Wu</li></ul> |
| 2014.9 - 2018.6   | <ul style="list-style-type: none"><li>• Bachelor of Software Engineering, Chongqing University</li></ul>                                                                                                                      |

## RESEARCH INTERESTS

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Deep Learning, Spatial-Temporal Data Mining, Code Representation Learning, Computer Vision

## POSITIONS

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| 2020.6 - 2020.12 | <ul style="list-style-type: none"><li>• Computer Vision R&amp;D Intern at Baidu.</li></ul> |
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## PUBLICATIONS

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| 2021 | <ul style="list-style-type: none"><li>• 骈纬国, 吴映波, 陈蒙, 蔡俊鹏. 一种基于时空动态图注意力网络的共享出行需求预测方法 [J]. 电子学报.</li></ul>                                                                                                                                                                                                 |
| 2020 | <ul style="list-style-type: none"><li>• Weiguo Pian, Yingbo Wu, Xiangmou Qu, Junpeng Cai and Ziyi Kou, <i>Spatial-Temporal Dynamic Graph Attention Networks for Ride-hailing Demand Prediction</i>, <i>arXiv:2006.05905</i>.</li></ul>                                                                    |
| 2020 | <ul style="list-style-type: none"><li>• Weiguo Pian, Yingbo Wu, and Ziyi Kou, <i>STDI-Net: Spatial-Temporal Network with Dynamic Interval Mapping for Bike Sharing Demand Prediction</i>, <i>29th ACM International Conference on Information and Knowledge Management (CIKM2020) workshop</i>.</li></ul> |

## COMMUNITY SERVICES

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ECML-PKDD 2020, PC member

## RESEARCH EXPERIENCE

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| 2018 | <ul style="list-style-type: none"><li>• [UGRD Thesis] <b>Visualization of Exercise Rehabilitation Program</b><ul style="list-style-type: none"><li>• Description: This project aims to collect the physiological parameters of patients based on the existing medical management system, and visualize them with the exercise rehabilitation program.</li><li>• Advisor: Prof. Yingbo Wu</li></ul></li></ul>                                                                                                                   |
| 2019 | <ul style="list-style-type: none"><li>• <b>Machine Learning-based Shared Transportation Demand Prediction</b><ul style="list-style-type: none"><li>• Description: This project aims to propose a novel machine learning-based method to provide decision-making for resource (vehicles or bikes) scheduling in shared transportation.</li><li>• Advisor: Prof. Yingbo Wu</li><li>• Outcome: A novel deep learning-based spatial-temporal model was proposed for the spatial-temporal data prediction task.</li></ul></li></ul> |
| 2020 | <ul style="list-style-type: none"><li>• <b>GNN-based Taxi Demand Prediction</b></li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                      |

- Description: This project aims to propose a new deep learning-based (GNN) method to further reduce the prediction error of the taxi demand prediction task, and utilize the open dataset from the ride-hailing platform (Didi Chuxing) to evaluate the performance of our proposed method.
- Advisor: Prof. Yingbo Wu
- Outcome: A new GAT (Graph Attention Network)-based dynamic graph spatio-temporal network was proposed for taxi demand prediction.

2020

- [Intern] **Fine-grained Video Understanding**
  - Description: This project aims to improve the search accuracy for videos with fine-grained tags in video search. In this project, we collect short videos and label them with fine-grained tags to build a large scale dataset. After that, a cross-modality model is used to learn the joint feature from both video and text content, for fine-grained video recognition.
  - Responsible for: Fine-grained action video collection and recognition.
  - Advisor: Chao Wang (Senior R&D Engineer of Computer Vision at Baidu)

## PROGRAMMING SKILLS

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Programming languages: Python, Java, C#, C

Deep learning and machine learning packages: PyTorch, Keras, Sklearn

Other skills: L<sup>A</sup>T<sub>E</sub>X

## AWARDS AND HONORS

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- 2018 • Outstanding Undergraduate Student of Chongqing University
- 2018 • Outstanding Engineer Student of Ministry of Education, China
- 2018 • A-Class Scholarship for Graduate Students of Chongqing University