

# Juyong Jiang

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## Education

- **Hohai University** **Nanjing, China**  
*B.S in Computer Science and Technology* *08/2016--07/2020*  
GPA 88.76/100, 4.67/5.0, ranking top 8/107 in major

## Personal Profile

I received my Bachelor's degree in Computer Science and Technology, Hohai University with honors of the **Excellent Bachelor Thesis Award** and recommended as **the Outstanding Bachelor Thesis in Jiangsu Province** in July. 2020. I used to be a member of Hohai Mathematical Modeling Lab and then joined Hohai AI Development Team, under the supervision of Prof. [Jianjun Ni](#). My research interest are **Computer Vision**, **NLP** and **GNN**, with a focus on **Object Detection**, **Instance Segmentation**, **GCN** and **Deep Learning**, supervised by Prof. [Jing Liu](#). So far, I have *read more than 100 CVPR/ ICCV/ ECCV/ NIPS/ AAAI / ACL / EMNLP / NAACL papers* so that I can understand and re-implement the new papers.

## Publications

- **Juyong Jiang**, Jie Zhang and Kai Zhang. "Cascaded Semantic and Positional Self-Attention Network for Document Classification." In Proceedings of the Conference on Empirical Methods in Natural Language Processing (*EMNLP*), 2020. (Submit)
- Junfeng Chen, **Juyong Jiang**, et al. "A fault diagnosis system for rail transit platform doors based on deep learning." Chinese Patent. 201910613949.1.
- Jianjun Ni, **Juyong Jiang**, et al. "Bank card number positioning and recognition end-to-end method based on CNN and RNN." Chinese Patent. 201910933476.3.
- Junfeng Chen, **Juyong Jiang**, et al. "Multi-regional precipitation prediction model construction method based on multi-graph convolution and memory network." Chinese Patent. 201911362437.9.

## Projects

- **Video & Image Instance Segmentation Based on Deep Learning. (03/2020--Present)**
  - Predict both the location and the semantic mask of each instance in an image & video.
  - Add the module of ASPP, CoordConv, DCN, Global Pooling, Self-Attention, etc. on base-line framework to solve some problems and improve performance.
  - ✓ *IVA, NLPR, CASIA & HuaWei*
- **Spatiotemporal Attention Probes Mechanism (09/2019--02/2020)**
  - Establish Spatiotemporal Graph.
  - Use Query as a seed and then use the Markov Random Walk, Random Walk with

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- Restart, Page Rank, etc. on Spatiotemporal Graph to form the interaction of neighborhood.
  - Combine the node information in the neighborhood to generate polarity features.
  - ✓ **Temple University & Fudan University.**
  - **Spatiotemporal Data Mining in Smart Cities Based on Deep Learning. (07/2019--08/2019)**
    - Encode the non-Euclidean pair-wise correlations among regions into multiple graphs and then explicitly model these correlations using multi-graph convolution.
    - Augments recurrent neural network with a contextual-aware gating mechanism to re-weights different historical observations.
    - ✓ **College of Computer Science and Technology, Zhejiang University.**
  - **Bank Card Recognition System Based on Deep Learning. (03/2019--07/2019)**
    - Data augmentation by using random cropping, rotation, various transformation, blur and noise.
    - Using CTPN & CRNN model to locate and recognize bank card number, respectively.
    - Developing a web page and an android app to display and use.
    - ✓ **College of Internet of Things Engineering, Hohai University.**

## Experience

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- **Image & Video Analysis Group (IVA), National Laboratory of Pattern Recognition (NLPR), Institute of Automation, Chinese Academic of Sciences (CASIA)** **Beijing, China**  
*Research Intern* 10/2019--Present  
 - Worked on **instance segmentation** in images & videos with Dr. Xinjian He, supervised by Prof. [Jing Liu](#).
- **Department of Computer and Information Sciences, Temple University** **Philadelphia, US**  
*Research Intern* 08/2019--02/2020  
 - Worked on **natural language processing**, supervised by Prof. [Kai Zhang](#).
- **Pervasive Computing Lab (PCLab), College of Computer Science and Technology Zhejiang University** **Hangzhou, China**  
*Research Intern* 07/2019--08/2019  
 - Worked on **spatiotemporal data mining** in smart cities based on deep learning, supervised by Prof. [Ling Chen](#).
- **AI Development Team, College of Internet of Things Engineering, Hohai University** **Nanjing, China**  
*Research Assistant* 08/2018--07/2020  
 - Worked on **application development** based on deep learning, supervised by Prof. [Jianjun Ni](#).

## Awards and Honors

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- Bachelor Thesis is recommended as **Outstanding Bachelor Thesis in Jiangsu Province (only 2 papers** in Department of Information, Hohai University), 2020
- **Excellent Bachelor Thesis Award** in Hohai University (5%), 2020.
- **Outstanding Student Honor** in Hohai University, 2020.
- Outstanding Student Honor in Hohai University, 2019.
- Excellent Grades in Trash Classification Challenge Cup of Huawei Cloud Artificial Intelligence Contest, 2019.
- Top 10 Outstanding students, College of Internet of Things Engineering, Hohai University, 2018.
- Advanced Individual of Students at Social Practices in Summer Vacation. (Serve as Electronic Referee in The 19th Annual Games in Jiangsu Province), 2018.
- Research and Innovation Excellent Scholarship in Hohai University, 2020.
- Spiritual Excellent Scholarship in Hohai University, 2020.
- Academic Excellent Scholarship in Hohai University, 2020.
- Spiritual Excellent Scholarship in Hohai University, 2019.
- Academic Excellent Scholarship in Hohai University, 2019.
- **National Encouragement Scholarship**, 2018.
- Academic Excellent Scholarship in Hohai University, 2018.
- Academic Excellent Scholarship in Hohai University, 2017.

## Mathematical Ability

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- 2nd Prize for Certificate Authority Cup Mathematical Modeling Online Challenge (Second Stage), 2020.
- 2nd Prize for Certificate Authority Cup Mathematical Modeling Online Challenge (First Stage), 2020.
- Honorable Mention for Mathematical Contest in Modeling (MCM), 2018.
- Honorable Mention for Certificate Authority Cup International Mathematical Contest in Modeling (CAMCM), 2017.
- Excellent academic grades in all mathematic curriculum. (Advanced Mathematics-A, Linear Algebra-A, Probability and Statistics-A, Mathematical Modeling-A, Numerical Analysis and Computing-A, Discrete Mathematics-A, Data Structure and Algorithms-A )

## Programming Skills

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<b>Language</b>	C / C++, Matlab, Java, Python
<b>Web</b>	HTML / CSS, JavaScript, JSP, PHP
<b>OS</b>	Linux
<b>Framework</b>	Tensorflow, Pytorch