

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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|---|-------------------------|
| <ul style="list-style-type: none"> • Image & Video Analysis Group (IVA), National Laboratory of Pattern Recognition (NLPR), Institute of Automation, Chinese Academic of Sciences (CASIA) | Beijing, China |
| <i>Research Intern</i> | <i>10/2019--Present</i> |
| <ul style="list-style-type: none"> - Worked on instance segmentation in images & videos with Dr. Xinjian He, supervised by Prof. Jing Liu. | |
| <ul style="list-style-type: none"> • Department of Computer and Information Sciences, Temple University | Philadelphia, US |
| <i>Research Intern</i> | <i>08/2019--02/2020</i> |
| <ul style="list-style-type: none"> - Worked on natural language processing, supervised by Prof. Kai Zhang. | |
| <ul style="list-style-type: none"> • Pervasive Computing Lab (PCLab), College of Computer Science and Technology Zhejiang University | Hangzhou, China |
| <i>Research Intern</i> | <i>07/2019--08/2019</i> |
| <ul style="list-style-type: none"> - Worked on spatiotemporal data mining in smart cities based on deep learning, supervised by Prof. Ling Chen. | |
| <ul style="list-style-type: none"> • AI Development Team, College of Internet of Things Engineering, Hohai University | Nanjing, China |
| <i>Research Assistant</i> | <i>08/2018--07/2020</i> |
| <ul style="list-style-type: none"> - Worked on application development based on deep learning, supervised by Prof. Jianjun Ni. | |

Awards and Honors

- 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

- 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

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