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 is Computer Vision, with a focus on **Object Detection**, **Instance Segmentation** 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 baseline 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

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

- **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

- 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.
- Spirtiual Excellent Scholarship in Hohai University, 2020.
- Academic Excellent Scholarship in Hohai University, 2020.
- Spirtiual 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 and Discrete Mathematics-A)

Programming Skills

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