Junyu Luo | Curriculum Vitae

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https://soap117.github.io/junyuluo/

Education&Award

Academic Qualifications

- **Sichuan University** **Bachelor**
  Computer Science, National Pilot Project(珠峰计划) *2015–2020(One year GAP working in MSRA as intern)*

Academic Score

- Overall GPA: 3.86, Major GPA: 3.924

Standard Test

- TOEFL: 103, GRE: 170+159+3.5

Honors&Awards

- **National Scholarship** | National **(THREE TIMES) 2015-2018**
- **Outstanding National Training Program of Innovation and Entrepreneurship for Undergraduates** | National **2017**
- **The first prize in Sichuan Province Lanqiao Programming Contest** | Provincial **2017**
- **The first prize in Sichuan University Mathematics Competition** | Institutional **2016**
- **The second prize in Sichuan University ACM Programming Contest** | Institutional **2016**
- **The First Prize Scholarship of Sichuan University** | Institutional **(THREE TIMES) 2015-2018**
- **Model Student of Academic Records** | Institutional **2017**

Publications

- **Junyu Luo**, Yong Xu, Chenwei Tang, and Jiancheng Lv. Learning Inverse Mapping by Autoencoder based Generative Adversaril Nets. The 24th International Conference on Neural Information Processing (ICONIP 2017), pp.207-216,Nov.2017.
- **Junyu Luo**, Min Yang, Ying Shen,Qiang Qu, and Haixia Chai. Learning Document Embeddings with Crossword Prediction. The Thirty-Third AAAI Conference on Artificial Intelligence (AAAI 2019), Student Abstract, Jan.2019.
- Zhile Jiang, Shuai Yu, Qiang Qu, Min Yang, **Junyu Luo**, and Juncheng Liu. Multi-task Learning for Author Profiling with Hierarchical Features. The 27th International World Wide Web Conferences, Apr. 2018.
- Changqin Huang, Jia Zhu, Yuzhi Liang, Min Yang, Gabriel Pui Cheong Fung, **Junyu Luo**. An efficient automatic multiple objectives optimization feature selection strategy for internet text classification. International Journal of Machine Learning and Cybernetics, Vol. 10, No.5, pp.1151-1163, May 2019.

Research Experience

- **Research Intern on Knowledge Computing** **JinGe Yao,Jinpeng Wang**
  Microsoft Research Lab - Asia(MSRA), Beijing, China *March 2019–Now*
  - Automatic pattern recognition
  - Object detection for special targets

- **Research Intern on Medical Images** **William Hsu**
  University of California(UCLA), Los Angeles, USA *July 2018–September 2018*
  - Selected as a CSST Intern under guidance of Professor William Hsu of Medical Imaging Informatics Lab
  - Built a pipeline system for pulmonary nodule analysis from the raw CT images using deep learning algorithms
  - Assisted with data preprocessing and algorithms optimization
  - **Finished with a report and poster presentation**

- **Research Intern on Natural Language Processing** **Min Yang**
  Shenzhen Institutes of Advanced Technology(SIAT),
  Chinese Academy of Sciences, Shenzhen, China *September 2017–July 2018*
  - Worked on Natural Language Processing projects under guidance of Professor Min Yang
  - Developed methods to generate semantic embedding for long sentences and cross-model searching
  - **One abstract accepted by AAAI 2019 and one long paper is submitted to CIKM 2019**

- **Research Intern on Deep Learning** **Jianchen Lv**
  MI LAB Sichuan University(SCU), Chengdu, China *September 2016–July 2017*
  - Finished one National Training Program of Innovation as leader and major developer and one independent research program under guidance of Professor Jianchen Lv
  - **Selected as national outstanding program and accepted by ICONIP 2017**

Notable Projects

- **Research Project(Ongoing MSRA 2019):** *'Structure Finding for Chart Design'* **Project Leader, Independent**
  The project aims at using automatic rule based approaches to find the potential structures in chart designs and extracts them to generate templates for users.
- **Research Project(Ongoing MSRA 2019)** *'Object detection for Chart Objects'* **Project Member, Group**
  Creating new approaches to detect chart objects. Unlike traditional common object detection, the chart data are highly homogeneous and abnormal in length-width ratio, which bring huge difficulties to the detection. Hence a new approach is needed for this new special situation.
- **Research Project(UCLA 2018):** *'Pipeline system for pulmonary nodule analysis'* **Project Leader, Independent**
  The project aims at using automatic approaches to help radiologists to analysis pulmonary nodules based on CT images. To provide a robust system that can perform image processing, lung segmentation, potential candidates detection and false positive reduction steps on general CT scans.
- **Research Project(SIAT 2018):** *'Embedding vectors for long text'* **Project Leader, Independent**
  This project aims to improve the present document embedding approaches on long text. To achieve a better performance I change the original training target of Doc2vec with a novel new target and use the RNN structure to replace the original network.
- **Research Project(SIAT 2018 Ongoing):** *'Cross model embedding'* **Project Leader, Independent**
  This project aims to improve the cross-modal/media retrieval results by improving the cross embedding section. The distribution of embedding outputs can have a great influence on final retrieval results. And based on this I improve the present unsupervised approach.
- **Personal Project(2017):***'Pix2Pix with Color Distribution'* **Project Leader, Independent**
  An improved Pix2pix network that can assign the desired generated color based on a color mask. The original structure is divided into two parts including texture network and coloring network.
  `https://github.com/soap117/Color_pix2pix`
- **Personal Project(2019):***'Pytorch Content Based Music Recommendation System'* **Project Leader, Independent**
  Inspired from general text embedding approaches and is based on clustering idea.
  `https://github.com/soap117/Tensorflow-Chinese-Twitter-Author-Info-Analysis-System`
- **National Training Program of Innovation and Entrepreneurship for Undergraduates(SCU 2017):** *'A LSTM based approach for microblog users' information mining'* **Project Leader, Group**
  Using net spider to collect short messages from social network and training an ID classier based on LSTM Cell to

automatically classify users' social backgrounds according to their short messages.

- **Research Project(SCU 2016):** *'Learning Inverse Mapping by Autoencoder'* **Project Leader, Independent**
  The project aims to improve the learning result of an inverse map of a pre-trained generator by using the ideas from the Autoencoder structure. The learned inverse map can be used as an unsupervised feature extractor for multiple tasks.

Featured Skills

- Experience in dealing all kinds of data(Image, Text, Video, Web, Audio, CT)
- Familiar with popular deep learning framework(Torch, Tensroflow) and algorithms
- Experience in building web pages and mobile applications
- Experience in using Latex
- Master in C,C++,Python familiar with Matlab, Java, JavaScript