

SHENGJIA YAN

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EDUCATION

- **Southeast University (SEU)** Nanjing, China
B.E. in Computer Science and Technology; GPA: 3.56/4.0 2013.08 - 2017.06

WORKING EXPERIENCE

- **AI Research Group, 17zuoye** Beijing, China
NLP Engineer 2017.06 - Present
 - Design and develop an automated essay enhancing system
 - Built an automated essay scoring system based on Feature Engineering, Logistic Regression and LSTM, which reached the best performance on the Kaggle ASAP dataset
 - Developed a grammar checker based on Convolutional Seq2Seq models and rules, which reached the best F0.5-score on CoNLL2014 datasets
- **Knowledge Science and Engineering Lab, Southeast University** Nanjing, China
Research Assistant (advisor: Prof. Guilin Qi) 2014.10 - 2017.06
 - Carried out data preprocessing using NLP approaches like spaCy to refine and analyze datasets
 - Presented and implemented a Random Walk algorithm in Python based on the Probabilistic Graphical Model to map the string mentions in web tables to their referent entities in a knowledge base
 - Achieved a 6% increase in F1-score compared to the latest published schemes. The result was **published in [1, 2]**

SELECTED PROJECTS

- **Deep Learning Grammar Error Correction System** 2018.06
 - Designed and developed a GEC system based on Facebook well-known Convolutional Seq2Seq paper and rule-based proofreading software LanguageTool
 - Supported grammar checkings of more than 1000 tokens per second on a single Tesla P100 GPU by optimizing deep learning inference with Nvidia TensorRT and ONNX
- **Crowdsourcing NLP Annotation Platform** 2018.05
 - Designed a crowdsourcing annotation system with multiple quality control mechanisms based on annotation tool Brat
 - Developed the frontend with HTML, CSS, Bootstrap and JavaScript
 - Built the backend service using Tornado/Python, MongoDB and deployed on AWS
- **DNN-Based Face Recognition System** 2017.03
 - Implemented the neural network Backpropagation algorithm in C and Constructed a DNN to recognize human's faces, poses and emotions
 - 148+ stars and 180+ forks on GitHub
- **C-Minus Compiler** 2016.06
 - Implemented the Regular-Expression-to-NFA converter, LR(1) parser and semantic analysis module in Python
 - Visualized the compiling process by plotting NFA, DFA, GOTO graphs with GraphViz

PUBLICATIONS

1. "Entity Linking in Web Tables with Multiple Linked Knowledge Bases", In proceedings of *Joint International Semantic Technology Conference*. Springer, Cham, 2016: 239-253 [pdf]
2. "A Method of Entity Linking in Web Tables based on Multiple Linked Knowledge Bases", Chinese Patent, CN106503148A, 2017

SKILLS

- **Languages:** Python, C/C++, JavaScript, Markdown, L^AT_EX
- **Tools:** Git, MongoDB, Tornado, Bootstrap, Qt
- **Frameworks:** TensorFlow, PyTorch, Keras, Scikit-Learn, Gensim, spaCy

HONORS

- Computer Programming Contest (Jiangsu Province), Third Prize, 2016.11
- SEU Computer Programming Contest, Fourth Place, 2016.10
- Outstanding Project, SEU Student Research Training Program, 2016.05

EXTRACURRICULAR ACTIVITIES

- International Student Leadership Program, California Polytechnic State University, CA, USA, 2016.01
- Nanjing Youth Olympic Games Volunteers, National Olympic Committee Assistant, Nanjing, China, 2014.07