JIALIANG DONG

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EDUCATION

North China Electric Power University September 2020 - Present
Master in Computer Science and Technology. GPA: 3.91, Ranking: 1/134 *Expected June 2023*

North China Electric Power University September 2015 - June 2019
Bachelor in Computer Science and Technology. GPA: 3.16 *Acquired June 2019*

PUBLICATIONS

- "A Sentence-level Text Adversarial Attack Algorithm against IIoT based Smart Grid" Jialiang Dong, Zhitao Guan, Longfei Wu, Xiaojiang Du, Mohsen Guizani, *Computer Networks*, 2021, 190: 107956 **Online**
- "Domain Corpus Augmentation Based Adversarial Attack against Domain-Specific NLP Models" Jialiang Dong, Shen Wang, Longfei Wu, Huoyuan Dong, Zhitao Guan, *International Journal of Intelligent Systems* **Minor**
- "Towards Explainability in NLP: Analyzing and Calculating Word Saliency through Word Properties" Jialiang Dong, Zhitao Guan, Longfei Wu, Zijian Zhang, *arXiv preprint arXiv:*2207.08083, 2022
  (Reject by IJCAI'22, with the rebuttal score 6/5/4/4)
- "A Textual Adversarial Attack Scheme for Domain-Specific Models" Jialiang Dong, Shen Wang, Longfei Wu, Huoyuan Dong, Zhitao Guan, *International Conference on Machine Learning for Cyber Security* **Accept**
- "Adversarial Attack and Defense on Natural Language Processing in Deep Learning: A Survey and Perspective" Huoyuan Dong, Jialiang Dong, Shuai Yuan, Zhitao Guan, *International Conference on Machine Learning for Cyber Security* **Accept**

PROJECT EXPERIENCE

Research on Key Technologies of Automatic Security Protection for New Business Applications, (Scientific Research Project of State Grid Corporation of China) July 2022 - Ongoing
Project Researcher

- Served as the technical leader of a subtopic of this project and led the team to complete the technical details.
- Analyzed the security background knowledge of the project, including the types of code vulnerabilities and vulnerability repair requirements involved in new business applications.
- Designed a static code vulnerability mining scheme that was based on pre-training programming language models, and contrastive learning was used to learn defect features.
- Developed code vulnerability automatic repair scheme, which worked on the source code and could be used for several distinct programming languages.
- Led the design of a multi-modal model for natural language annotations and program codes, and realized the generation of functional annotations for vulnerabilities.

AWARDS & HONORS

- National Scholarship for Postgraduate Student, North China Electric Power University. December 2021
- Outstanding Postgraduate Model, North China Electric Power University. December 2021
- First Prize, Excellent Student of Academic Performance in the academic year of 2020-2021, North China Electric Power University. December 2021
- National Excellence Award, Innovation and Entrepreneurship Competition of College Students. August 2018

SKILLS AND INTERESTS

Computer Skills Python, C/C++, JAVA, LaTeX.
Language Skills Mandarin (Native), English (IELTS: 7.0).
Interests Photography, Roller Skating, Hiking.