

# Xian Wang

Software Engineering, Xidian University, China

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## Education

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**Xidian University**

Xian, China

B.Eng. in Software Engineering (Specialization: Machine Learning)

Sep. 2018~Now

GPA: 3.7/4.0

## Research Interests

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Machine Learning, Intrusion Detection, Cybersecurity, Edge Computing.

## Research Experience

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**Once Pre-training: Online Packets Inspection Considering Imbalanced Data and Concept Drift**

USENIX in review, Second author

Mar. 2020~Oct. 2020

- It proposes a dynamic ensemble classifier for packets-based intrusion detection and designs a better Word2Vec-based method to extract features of packets. It considers imbalance problem and concept drift and achieves the sota performance.
- I participate in literature research, model testing, model design, coding, and paper writing of this work.

**Simple Attention-based RelationNet with Better Encapsulation and Classification for Few-shot Learning**

Nov. 2019~Mar. 2020

COLING in review, Third author

- It proposes a simple and robust model based on feature attention and instance attention for the few-shot task, which uses a learnable nonlinear measurement method for classification. It helps obtain a better class vector and shows a good generalization on the text classification task.
- I participate in literature research, model testing and paper revision of this work.

## Internship

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**Xidian Network and Information Security Lab**

Sep. 2018~Sep. 2020

- Research on Machine Learning based Cybersecurity Application.
- I read related papers, test their models and share my progress monthly during the internship.

## Honors and Awards

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- 2019~2020 National Scholarship (TOP 1%)**, by Ministry of Education of the People's Republic of China, 2020
- 2018~2019 National Scholarship (TOP 1%)**, by Ministry of Education of the People's Republic of China, 2019
- Honorable Mention** in American International Interdisciplinary Contest in Modeling, by the Consortium for Mathematics and Its Application, 2020
- Second Prize (TOP 0.15%)** in National English Competition for College Students, by College English Teaching and Research Association of China, 2019
- Silver Prize** in the "Internet+" Innovation and Entrepreneurship Competition, by Shaanxi Provincial Department of Education, 2019
- Honorable Mention** in American International Interdisciplinary Contest in Modeling, the Consortium for Mathematics and Its Application, 2020
- Second Prize** in National Mathematical Contest in Modeling, by Shaanxi Association of Industry and Applied Mathematics, 2019
- Second Prize** in National English Writing Competition, by Foreign Language Teaching Steering Committee of Institutions of Higher Learning, 2019

- **Outstanding Winner (TOP 1%)** in the 5<sup>th</sup> Xidian English Writing Competition, by Xidian University, 2019
- **First Prize (TOP 8%)** in Mathematical Contest of Xidian University, by Xidian university, 2019
- **First Prize** in Xidian English Speech Contest, by Xidian University, 2019

## Selected Projects

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### **C++ Based Students Management System for Teachers**

- It can help teachers organize registration, roll call, signing in and interact with students.

### **MATLAB Based Modelling for Football Players' Dynamic Networks**

- It is an implementation of the theories of football players' dynamic networks
- It can construct ball-passing networks of a football team and help analysis the team's performance by the networks.

### **Stanford Online Training Projects on Machine Learning**

- The 11 week's tasks include spam detection, handwritten numeral recognition, cancer classification and so on. I implemented them all in MATLAB.

## Skills

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**Coding:** Python, C, C++, MATLAB, Java, L<sup>A</sup>T<sub>E</sub>X

**Framework:** TensorFlow, Scapy, Sklearn, NumPy, Pandas

**Tool & Platform:** MySQL, WireShark, Linux

**Language:** Chinese(mother tongue), English(fluent)

## Selected Coursework

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Probability Theory • Machine Learning • Operating Systems • Database Management  
Computer Communication and Network • Information Security • Cloud Computing