Miss Li Xinyi
Room 406, Building 5, Shiji Yangguang Huayuan, Hefei, Anhui, China
Tel.: +86-15955132019 E-mail: inspirelixy@163.com

STRENGTHS:

- Solid Science background with strong problem-solving skills
- Rich project experience in algorithm implementation, mathematical modeling and natural language processing
- Strong leadership demonstrated in extensive extracurricular activities

EDUCATION

Northwestern Polytechnical University*(985&211 Project University)* 09/2017-Present

- **Bachelor of Science in Mathematics and Applied Mathematics**
- **Overall GPA: 87.6/100 Final Year Average: 90.8/100**
- **Academic Papers:** *1. Speaker Identification Technology*
  2. Establishment of Economic Vitality Index System Based on Multiple Linear Regression
- **Awards:** Alumni Scholarship (2019), School-level Outstanding Student (2018, 2019, 2020)

Exchange Student, National Sun Yat-sen University 09/2019-01/2020

- **Core Courses:** *Machine Learning(A+), Cryptography(A+), Seminar in Stochastic Processes(A+), Applied Functional Analysis(A), Discrete Mathematics(A-), Mathematical Statistics(A-)*
- **Reference Books:** *Functional Analysis*, *Applied Combinatorics, Statistical Inference*

Visiting Student, Columbia University 07/2018-08/2018

- **American Language Program** | **Core Courses:** Writing, Speaking, Collaboration | **Achievement:** Straight A's

RESEACH PROJECTS

Team Leader, Research on Invulnerable Network Design for First-order Multi-agent Systems 05/2020

- Involved in theoretical research and algorithm implementation
- Analyzed tree graphs with 3 to 16 vertexes and graphs of other structures by Python, tried to design a graph structure to obtain the maximum algebraic connectivity (i.e. the fastest convergence speed) through adding or removing edges
- Having managed to make convergence speed of the network faster by reducing the girth of the smaller circle when testing bicyclic graphs and now try to prove this conclusion via recurrence equation
- Studying invulnerability by testing bicyclic graphs and attempting to achieve the strongest invulnerability of a network

Intelligent Management and Process Optimization of Aircraft Adjustment Parts 04/2020

- Undertook algorithm design and optimization
- Engaged in initial design of the project, Python programming, data cleaning and data analysis

Natural Language Processing Intelligent Chatbot Project 01/2020-03/2020
(Supervised by an MIT post-doctor Zhang Fan)

- Learned about natural language processing
- Applied Spotify's API to build an intelligent chatbot that could recommend different music based on keywords (e.g., singer's name, album's name, mood, music type, etc.) in chats
- Put the intelligent chatbot on the Facebook fan page through Webhook and eventually it passed the test

Voiceprint Recognition 10/ 2018-04/2019

- Responsible for algorithm improvement and Matlab program
- Familiar with the existing methods and achievements of voiceprint recognition, optimized GMM-UBM model by integrating multiple Gauss algorithms, and studied the application of Matlab speech recognition toolbox
- Wrote an academic paper *Speaker Identification Technology* and won the first prize in school innovation contest

Image Recovery and Processing in Haze Days 04/2018

- In charge of the improvement of convolutional neural network
- Referred to literature about existing image recovery techniques and deepened the convolutional neural network

COMPITITIONS & HONORS

House Prices: Advanced Regression Techniques (organized by Kaggle) 07/2020

2019 The 9th Asia and Pacific Mathematical Contest in Modeling | **The First Prize** 12/2019

2019 National Electrical Engineering Mathematical Modeling Competition | **National Second Prize** 07/2019

2019 The 9th MathorCup Mathematical Modeling Challenge | **National Third Prize** 06/2019

2019 National English Competition for College Students | **Grand Prize in Shaanxi Province** 06/2019

2019 English Speech Contest in Northwestern Polytechnical University | **Grand Prize** 06/2019

2019 National University Student Social Practice and Science Contest on Energy Saving & Emission Reduction | **University-level Second Prize** 04/2019

2019 Mathematical Contest In Modeling | **Honorable Mention** 03/2019

The 16th "Challenge Cup" National Extracurricular Academic Science and Technology Works Competition for College Students | **University-level Second Prize** 01/2019

2018 The Chinese Mathematics Competitions | **The First Prize in Shaanxi Province** 12/2018

2018 China Undergraduate Mathematical Contest in Modeling | **The Second Prize in Shaanxi Province** 12/2018

SKILLS & CERTIFICATES

- **Data Mining & Computer Programming**: Proficient in C Language; Python; MATLAB; SPSS; SQL, Mathematica, Auto CAD, LaTeX
- **Machine Learning:** Random Forest, Gradient Boosting, SVM, XG Boost, Lasso Regression
- **Coursera Certificates**: Data Visualization with Python(100%); Data Analysis with Python(100%); Databases and SQL for Data Science(100%); Machine Learning with Python(100%)
- **Language:** English(IELTS: 7.0, CET6: 655); German(A1); Korean(medium-level); Mandarin(native)
- **Artistic Innovation:** Piano, Drum Set, Guitar, Violin; Music-making

LEADERSHIP & INTERNSHIPS

Speaker, Youth Speaker Team of NWPU 03/2020

Intern, Haitong Securities Co., Ltd. 07/2019

English Teacher, Shanghai Zhangmen Education Technology Co., Ltd. 02/2019

People in charge in Anhui Province, Love Through Train of NWPU 07/2018-08/2018

Secretary, Students' Association Union of NWPU 09/2017-06/2019