# YI NIE

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### **4** EDUCATIONAL BACKGROUND

### George Washington University (GWU)

Washington DC; Sep.2020-Jan.2023

- Columbia College of Arts and Sciences, Master of Science in Statistics; GPA: 3.82/4.0
- Core courses: Mathematical Statistics; Applied Linear Model; Longitudinal Data Analysis; Deep Learning; Bayesian Statistics; Survival Analysis; Introduction to Data Science

### **Northwest University (NWU)**

Xi'an; Sep.2015-Jun.2019

- School of Mathematics, Bachelor of Science
- Core courses: Theory of Real Variable Function and Measure Theory, Functional Analysis, Statistical Machine Learning, Nonparametric Statistics, Multivariate Statistical Analysis

#### TECHNICAL SKILLS

- Programming Languages: Python(Advanced), R(Advanced), MATLAB(Competent)
- Tools: Pandas, Numpy, Pytorch, Tensorflow, Stat Model,...
- Machine Learning & Applications: Data Preprocessing, Supervised & Unsupervised Learning, Deep Learning
- Language: Chinese(Native), English(Advanced), Japanese(Advanced)

#### PROJECT EXPERIENCE

# Application of GANs in the field of Image Generating

April. 2022

- Implement batch processing techniques to preprocess the data and prepare it for training the GANs
- Generate high-quality Ukiyoe-style images that closely resembled the images in the training dataset

## Image Denoising and Inpainting with Convex Optimization Method | Python

May 2021-Jun.2021

- Instructor: Prof. Shlomo Ta'asan, Carnegie Mellon University
- Master the theoretical knowledge of continuous optimization and successfully implement mathematical optimization in python by using Numpy, Sklearn, etc.
- Proposed project about the application of LASSO in image denoising inpainting

# Big Data and Blockchain Theory and Applied Science Seminar

Jul.2021

## Held by the Chinese Association for Applied Statistics

- Took charge of informing the meeting schedule, making a list of the registered participants, and meeting minutes
- Exchanged ideas with experienced industry practitioners about metric/distance-based methods and their application in statistics to measure the conditional dependence

#### Investigation of Poisonous Wild Mushroom in Yunan | R, Tableau

Sep.2019-Oct.2019

- Extract and clean data from different sources from booth keeper, vendor and consumer
- Investigated health information of consumers, consumption preference, food poisoning experience
- Tracked data and computing process to shoot troubles
- Verified the record of monthly wild mushroom consumption

### Statistical Application of Differential Privacy | Python, R

Apr.2019-Jun.2019

- Based on the algorithm framework of differential privacy proposed by Dwork, analyzed the effect of quadratic classifier based on differential privacy algorithm
- Explored the new algorithm to reduce the false discovery rate

#### INTERNSHIP EXPERIENCE

# Teaching Assistant for Undergraduate Class, Mathematics and Policies

Washington DC; Sep.2022-Dec.2022

- Assisted the instructor in grading assignment, quiz and exams for undergraduate students
- Held discussion sessions to help students review and practice the lecture material

## Administrative Office, Kunming Bureau of Statistics

Kunming; Aug.2018-Sep.2018

- Used Excel formulas to make statistical analysis of data about employee personnel and title information
- Became familiarized with the internal information management system qualification

#### HONOR

## Dean's Scholarship, School of Mathematics, Northwest University

Xi'an; Sep.2017-Sep.2018

- Individual Scholarship for the outstanding academic performance

#### CAMPUS ACTIVITIES

#### Marketing Dept., Student Union of School of Mathematics

Xi'an; Sep.2015-Sep.2016

- Operated public WeChat account daily, updated articles and news, answered audience feedback
- Organized large scale activities, made posters and marketing materials for campus-wide activities

#### Marketing Dept., Kendo Club of Northwest University

Xi'an; Sep.2017-Jun,2019

Took charge of club recruitment and training, organized internal competitions and activities