

WU, LINLIN

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EDUCATION

Beijing University of Technology(BJUT)

Beijing, China

Faculty of Science

09/2020-06/2024

Prospective Bachelor of Science

Specialty: Statistics Minor: Computer Science

GPA: 3.95/4.0, Class Rank: 1/26

BJUT First-class Scholarship for consecutive four years

BJUT Academic Excellence Award in 06/2022

Third Prize, BJUT Physics Competition in 10/2021

IELTS: 7.5(L8.0/R8.0/W7.0/S6.5)

GRE: (V153+Q170, AW3.5; V154+Q167, AW3.0)

EXPECTED PUBLICATIONS

[1] Linlin Wu(Co-first), Mingyi Huang(Co-first), Yan Wang(Co-first), Generalized LS Calibration for Expensive Computer Models, under review in 10/2023

[2] Linlin Wu, Qi Wang, Research on Object Detection with Livestock in Hulun Buir by Aerial Remote Sensing, Planned in 06/2024

[3] Hui Lan, Linlin Wu, Research on Relation between Eye Movement and Mind Wandering, Planned in 05/2024

RESEARCH EXPERIENCES

Research on Object Detection of Livestock in Hulun Buir and their Quantitative Variation via YOLO Algorithm

Hulun Buir, China

Researcher, instructed by Dr. Wang, Qi, Key Laboratory of Quantitative Remote Sensing Information Technology, Aerospace Information Research Institute, Chinese Academy of Sciences

07/2023-Present

- Collected data on livestock in Hulun Buir by UAV and Tethered balloon including 1245 pictures and over 90 hours of video
- Produced training samples through data annotation with 628 images in total
- Completed training and detection process and evaluated models with accuracy, precision, and recall
- Retrained the model by binary identification and data enhancement to enhance the model accuracy from 65% to 73%

Generalized LS Calibration for Expensive Computer Models

Beijing, China

Researcher&Co-author, instructed by Dr. Wang, Yan

10/2022-Present

- Utilized Gaussian Processes as a surrogate model to simulate computer experiment outputs
- Derived formula to prove an additional variance term in the loss function can reduce fluctuation while enhancing accuracy
- Reproduced methods such as KO and GALS calibrations, via data from the MATLAB FEM toolbox

Research on Relation between Eye Movement and Mind Wandering

Beijing, China

Researcher&Co-author, instructed by Dr. Lan Hui

05/2023-Present

- Cleaned experimentally collected high-dimensional sparse data with a total of 300 experimental participants and 16 variables on facial expressions with R

- Reproduced models for multivariate variable point detection for high-dimensional data, such as SARA, a binary multivariate variable point detection model
- Compared the accuracy of multiple multivariate high-dimensional variable point detection, proposed a new CUSUM statistic, and wrote the paper

ACADEMIC PROJECTS

Differential Equation-based Model of Species Competition under Irregular Weather Cycles

Team Leader, instructed by Professor Han, Min

02/2023-03/2023

- Studied species variation, interrelations, and phytocoenosis's characteristics under irregular weather cycles via Niche difference, competitive difference, and the jungle model
- Stimulated precipitation function and made the Lotka-Volterra competition model
- Conducted experiments and researched individual variations based on related models
- Completed programming process and provided conclusions and solutions

Research on Frequency and Influence Factors of Luckin Coffee Purchase in BJUT

Researcher, instructed by Dr. Wang, Yan

09/-12/2022

- Completed sampling, online questionnaire, data screening, and preprocessing
- Conducted descriptive analysis, variance analysis, and variable visualization with R
- Compared results from exponential regression, linear regression, quadratic regression, and segmented regression
- Finished model test and model diagnostics with AIC

Research on Epidemic Models- SIR, SEIR, and SEINR

Researcher, instructed by Professor Zhao, Xinyuan

08-09/2022

- Dealt with official datasets on different variables like the confirmed, the suspected, and the recovered
- Simulated epidemic outbreak and compared SIR, SEIR, and SEINR
- Considered migrations in cities and demarcated training, test, and verification sets
- Completed modeling and programming with Python and finished the paper

INTERNSHIP EXPERIENCE

Guorong Securities

Beijing, China

Intern, Business Management Division, supervised by Ms. Wu, Yu

07/2022-08/2022

- Explored periodicity rules of recruitment and tried to improve the efficiency by data processing and visualization
- Utilized models like ARIMA, SARIMA, VARIMA, LSTM, and XLNet, and improved data processing efficiency and extraction accuracy
- Increased posted resumes and saved recruitment costs through statistical models and applications, such as timing advertisement placement
- Provided further solutions to various obstacles in dataset deficiency, counterparts' competition, COVID-19, economic indicators, and industry dynamics

SKILLS

Languages: Native Chinese Speaker, Excellent in English

Computer: Excel, Python, R, C, C++, Pytorch(Tensorflow), SPSS, SQL, Matlab

Qualification: CCOM Piano Grade 9

Interests: 10 years' Piano Performance Experience, Sketch, Oil Painting