

Bingyan Liang

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Education

University of Wisconsin - Madison , MS in Statistics and Data Science GPA: 3.94/4.0	Sept 2022 – May 2024
Honors College of Capital Normal University , BS in Mathematics and Applied Mathematics GPA: 3.95/5.0	Sept 2018 – Jul 2022
University at Buffalo , Exchange Student GPA: 3.956/4.0	Jan 2020 – Dec 2020

Experience

Research Assistant , John Hopkins Computational Imaging Group – Remote • Conducting theoretical research and numerical validation on Plug-and-Play (PnP) Monte Carlo algorithms, focusing on improving image reconstruction techniques.	Sept 2024 – Now
Junior Software Engineer , MLOptic – Redmond, WA • Wrote unit tests for image calibration system in Visual Studio using C++ , organize GitLab codebase. • Resolved system crashes and updated services for seamless camera connection in smart MTF projects, while contributing to stand alone application developing. • Developing Image Mura Defect detection method with Neural Network now.	June 2023 – Aug 2023 July 2024 – Now
Business Analyst Intern , Bayer CropScience – Beijing, China • Developed an Auto-Forecast system leveraging time series analysis algorithms to forecast products in the Chinese market, utilizing R and Excel • Conducted in-depth sales pattern analysis for products, aiding production decisions through advanced data visualization techniques in Excel • Collaborated with business planning team to integrate data analytics; presented insights to senior leadership and provide strategic recommendations on adjustments to product manufacturing strategy	Aug 2021 – Mar 2022

Projects

Bayesian Techniques for Galaxy Property Analysis Applied Bayesian hierarchical modeling and Bayesian Additive Regression Tree (BART) techniques to analyze galaxy properties from the Dark Energy Survey (DES) dataset, focusing on redshift estimation and the effects of data pooling on model performance.	2024, UW-Madison
Yelp Data Analysis Natural Language Processing and sentiment analysis of large yelp review data to provide simulated consulting for merchants to start a successful business of Mexican food.	2023, UW-Madison
Graduation Thesis <i>The Research on Modeling Mechanism of Migration Probability and Ecological Diffusion Model</i>	2022, CNU
National Research and Training Project <i>Explore the Conditions of Exchange Order in Mathematical Analysis and Its Application</i>	2021, CNU

Technologies

Languages: Python, R, Bash, C++ , JavaScript

Technologies: Linux, Shiny, OpenCV, Tensorflow, Sci-kit, Torch, numpy, pandas, pyspark, Hadoop, Flask, Git, Google Cloud Platform(GCP), High Performance Computing (HPC),