BOYAN DUAN

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EDUCATION

Carnegie Mellon University, Pittsburgh, USA   *September 2016 - June 2021 (expected)*
Ph.D. in Statistics
Department of Statistics & Data Science

University of Science and Technology of China, Hefei   *September 2012 - June 2016*
Bachelor of Statistics
School of the Gifted Young

University of Birmingham, UK   *June 2015 - August 2015*
Intern in Computer Science

RESEARCH INTERESTS

Adaptive sequential experiments
human-in-the-loop interactive testing, anytime p-values, martingale

Hypothesis testing in dynamic setting
multiple hypothesis testing, nonparametric testing, reproducibility in science and technology

SUBMISSION AND ONGOING PROJECTS

Interactive Martingale Tests for the Global Null (arXiv preprint 1909.07339)
Boyan Duan, Aaditya Ramdas, Sivaraman Balakrishnan, Larry Wasserman

Develop martingale analogs of classical global null tests and further develop human-in-the-loop interactive tests for the global null.
Presented in (MCP) International Conference on Multiple Comparison Procedures in Dec., 2019.

Familywise error rate control by interactive unmasking (arXiv preprint 2002.08545)
Boyan Duan, Aaditya Ramdas, Larry Wasserman

Develop human-in-the-loop interactive procedures for multiple hypothesis testing with familywise error rate (FWER) control.

Interactive rank tests (ongoing)
Boyan Duan, Aaditya Ramdas, Larry Wasserman

Develop interactive tests for nonparametric testing to compare two/multiple samples provided with paired/unpaired dataset.

TEACHING ASSISTANT

In-class tutorials, office hours and grading for the following classes:
36-218 Probability Theory for Computer Scientists (Head TA)
36-708 Statistical Methods in Machine Learning (PhD Level Class)
36-705 Intermediate Statistics (PhD Level Class)
46-927 Statistical Machine Learning II
36-410 Introduction to Probability Modeling
36-401 Modern Regression
36-217 Probability Theory and Random Processes
36-225 Introduction to Probability Theory