NISS

Affiliates Update

SEPTEMBER | 2020

Welcome!

This monthly Affiliates Update highlights upcoming NISS sponsored events.

PLEASE CIRCULATE THIS AFFILIATES UPDATE TO YOUR COLLEAGUES!

NISS sponsored events encourage cross-sector and cross-disciplinary networking. Let us know if you are planning an event and would like NISS to co-sponsor it. NISS affiliates can use their award funds to support these events or receive discounted registration. For more information about the NISS Affiliate program, see: <u>https://www.niss.org/affiliate-program-information</u>.

James Rosenberger, Director NISS

FEATURED EVENT: NISS-MERCK VIRTUAL MEET-UP ON ISSUES IN VACCINE DEVELOPMENT

September 16, 2020 11-12:30 ET

The National Institute of Statistical Science (NISS) and Merck are hosting a Virtual Meet-Up on Vaccine Development.

With the COVID pandemic having such a profound effect, everyone is hoping for a highly protective and safe vaccine soon. Yet most have little understanding of the difficult road for discovery and development of a vaccine. In this meet-up we will discuss some of the challenges of vaccine development and novel ways those challenges can be met.





Moderator: Dan Holder (Merck) Speakers: (left to right) Ivan Chan, (AbbVie Inc.), Joshua Chen, (Sanofi Pasteur), Marc Lipsitch, (Harvard University).

Find Full Session Details on the NISS website!

EVENT SERIES: ESSENTIAL DATA SCIENCE FOR BUSINESS TUTORIALS SCHEDULED THROUGH THE FALL



OptimizationComputer Consulting SCIENCEVisualization Tools AnalySiSExploratory SoftSocial Data UpliftEthics Machine Modeling Data UpliftEthics Machine Model

NISS announces a brand new series of tutorials on some of the most interesting topics in data science that are in use in business today!

Students and faculty, these are perhaps the top ten most important and practical topics that may not be covered in your program of study.

The first overview session was presented by Victor Lo of Fidelity Investments (review the recording of this session).

Titles of the 3 hour tutorials scheduled to be presented through the fall of 2020:

October 7, 2020 - James Harner: "Data Science Workflows"

October 21, 2020 - Lee Wilkinson: "Descriptive Analytics, Exploratory Data Analysis, and Data Visualization"

November 4, 2020 - Yanling Zuo: "Predictive Analytics and Machine Learning"

November 18, 2020 - Victor Lo & Dominique / Jonathan Haughton: "Causal Inference and Uplift Modeling"

December 2, 2020 - Ming Li: "Deep Learning"

The following tutorials are being scheduled beginning in the new year, 2021.

Winter 2021: "Prescriptive Analytics and Optimization"

Winter 2021: "Unstructured Data Analysis"

Winter 2021: "Social Sciences and Data Science Ethics"

Winter 2021: "Domain Knowledge and Case Studies"

Winter 2021 - Sam Woolford: "Analytical Consulting, Communication and Soft Skills"



The first five Essential Data Science for Business tutorial instructors; James Harner (West Virginia University), Lee Wilkinson (H2O), Yanling Zuo (Minitab), Victor Lo (Fidelity Investments), Ming Li (Amazon).

> Find Full Session Details on the NISS website!

RESOURCE: TIPS, ADVICE AND TECHNOLOGIES FOR TEACHING ONLINE SHARED BY EXPERTS

If you are looking for timely resources and ideas for teaching your statistics courses online or remotely, please share this resource!



Moderator: Esra Kurum (University of California, Riverside) Speakers: John Haubrick (Penn State University), Kristin Lynn Sainani (Stanford University) and Melinda Clardy (South Louisiana Community College).

Link to Session Recording, Slides and Resources

Large classes, small classes, academic integrity - this webinar presented to a large audience, received great reviews and many have watched the recordings after the event.

NISS Affiliates - take advantage of this valued resource!

Please forward to colleagues.

Find Full Session Details on the NISS website!

FEATURED EVENT: INGRAM OLKIN FORUM ALGORITHMIC FAIRNESS AND SOCIAL JUSTICE

September 25, 2020 1:30-3 pm EDT

Algorithms used for policies, evaluations, and discoveries that involve or affect people have become commonplace. Typically constructed by statistical and machine learning (AI) methods they may harbor biases affecting individuals or subgroups of individuals in the society, resulting in questions of fairness and the implications for justice. For example, the algorithm COMPAS, which has been extensively used in assessing risk of recidivism and for sentencing in criminal cases, has been faulted for having racial bias. And, in State v. Loomis (2016), the Wisconsin Supreme Court rejected an individual claim of unfair sentencing because he (Loomis) was denied access and could not challenge COMPAS' lack of transparency.

Moderator: Claire Kelling (Penn State), Speakers: Alexandra Chouldechova (Carnegie-Mellon University), Kristian Lum (University of Pennsylvania), Kush Varshney (IBM).

Defining fairness, determining the presence or absence of biases, how they might arise, and whether they can be detected or ameliorated is of direct concern. The speakers will discuss algorithmic fairness broadly as well as how these issues arise throughout the AI lifecycle in various application domains.

Register for This Event Here!

Statistics Serving Society

Find Full Session Details on the NISS website!

FEATURED EVENT: THE STATISTICS DEBATE!

Where do YOU stand?

- Given the issues surrounding the misuses and abuse of p-values, do you think p-values should be used?
- Do you think the use of estimation and confidence intervals eliminates the need for hypothesis tests?
- Bayes Factors are you for or against?
- How should we address the reproducibility crisis?

If you are intrigued by these questions and have an interest in how these questions might be answered - one way of the other – then this is the event for you!



Debate Host: Dan Jeske (University of California, Riverside) Participants: Jim Berger (Duke University), Deborah Mayo (Virginia Tech), David Trafimow (New Mexico State University).



October 15, Noon - 2 pm ET

Want to get a sense of the thinking behind the practicality (or not) of various statistical approaches? Interested in hearing both sides of the story – during the same session!?

This event will be held in a debate type of format. The participants will be given selected questions ahead of time so they have a chance to think about their responses, but this is intended to be much less of a presentation and more of a give and take between the debaters.

So – let's have fun with this! The best way to find out what happens is to <u>register and attend</u>! <u>Find Full Session Details on</u> the NISS website!

NISS

SEPTEMBER

NISS-Merck Virtual Meet-up on Issues in Vaccine Development

Event Date: September 16, 2020 11-12:30 ET Event Location: Online Webinar

The National Institute of Statistical Science (NISS) and Merck are sponsoring a Virtual Meet-Up on Vaccine Development. With the COVID pandemic having such a profound effect, everyone is hoping for a highly protective and safe vaccine soon. Yet most have little understanding of the difficult road... (<u>read more</u>)

Webinar Series: Mathematical Foundations of Data Science

Event Date: September 18th, 2020 11am ET Event Location: Online Webinar

Harnessing structure and algorithmic properties for scalable learning methods over networks Speaker Na Li, Harvard University Abstract Recent radical evolution in distributed sensing, computation, communication, and actuation has fostered the emergence of cyberphysical networked systems, across a... (read more)

Webinar Series: Deep Learning Methods and Theory

Event Date: September 18, 2020, 3:30 - 4:30 p.m. EDT Event Location: Online Webinar

Integrating Domain-Knowledge into Deep Learning Ruslan Salakhutdinov, (Machine Learning Department, School of Computer Science, Carnegie Mellon University Abstract I will first discuss deep learning models that can find semantically meaningful representations of words, learn to read documents and... (read more)

Ingram Olkin Forum: Algorithmic Fairness and Social Justice

Event Date: September 25, 2020 1:30-3 pm EDT Event Location: Online Webinar

Algorithms used for policies, evaluations, and discoveries that involve or affect people have become commonplace. Typically constructed by statistical and machine learning (AI) methods they may harbor biases affecting individuals or subgroups of individuals in the society, resulting in questions... (read more)

OCTOBER

Essential Data Science for Business: Data Science Workflows

Event Date: October 7, 2020 1-4 pm ET Event Location: Online Tutorial

This tutorial focuses on data science workflows (or pipelines) for building machine learning models on structured data using R and Spark. R is a flexible, extensible statistical computing environment, but it is limited to single-core ... (read more)

The Statistics Debate!

Event Date: October 15, Noon - 2 pm ET Event Location: Online Webinar

Where do YOU stand? Given the issues surrounding the misuses and abuse of p-values, do you think p-values should be used? Do you think

the use of estimation and confidence intervals eliminates the need for hypothesis tests? Bayes Factors - are you for or against? How should we address the... (read more)

Essential Data Science for Business: Descriptive Analytics, Exploratory Data Analysis, and Data Visualization

Event Date: October 21, 2020 1-4 pm ET Event Location: Online Tutorial (<u>read more</u>)

Nancy Reid is Inaugural Myles Hollander Distinguished Lecturer

Event Date: October 30, 2020 Event Location: Online Webinar

The Department of Statistics at Florida State University is pleased to announce Nancy Reid, University Professor and Canada Research Chair in Statistical Methodology at the University of Toronto, as the inaugural speaker for its newly endowed Myles Hollander Distinguished Lecture. Reid will... (read more)

NOVEMBER

Essential Data Science for Business: Predictive Analytics and Machine Learning

Event Date: November 4, 2020 1-4 pm ET Event Location: Online Tutorial

Predictive Analytics and Machine Learning cover a large and highly varied arsenal of techniques. To make our precious 3-hour time together more productive and fun, we focus on three commonly used supervised machine learning techniques ... (read more)

Essential Data Science for Business: Causal Inference and Uplift Modeling

Event Date: November 18, 2020 1-4 pm ET Event Location: Online Tutorial (read more)

DECEMBER

Essential Data Science for Business: Deep Learning

Event Date: December 2, 2020 1-4 pm ET Event Location: Online Tutorial

The tutorials in this NISS series involve the Top 10 analytics approaches of the key topics that are used in business today! Students and faculty, these are perhaps the top ten most important and practical topics that may not be covered in your program of study. (Review the Overview Presentation... (read more)

2021

Check the <u>NISS Events webpage</u> for up to date event information!

AISC 2021

Event Date: October 8 - 10, 2021 Event Location: Greensboro, North Carolina, 27412

International Conference on Advances in Interdisciplinary Statistics and Combinatorics The main objective of the conference is to promote interdisciplinary research involving statistical techniques. These techniques are becoming increasingly important in all fields of scientific discovery. A unique... (read more)

AFFILIATES! SEND YOUR JOB ANNOUNCEMENTS TO NISS!

A link to the Job Announcements page can be found at the bottom of of every page of the NISS website! Share your announcement with other organizations associated with NISS or other visitors to our website.

Interested in the positions that have been posted?

Visit the NISS Job Annoucements Page

Please share with Colleagues!



The National Institute of Statistical Sciences (NISS) is an organization whose mission fosters cross-disciplinary research and advocates for statistical engagement in data science. NISS

www.NISS.org

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