DATAPALOOZA

PROGRAM BOOK

November 11, 2022

University of Virginia
Newcomb Hall

UVA DATA SCIENCE

"Our world is changing, driven by data, in ways as profound as the changes brought about by the agricultural, industrial and computer revolutions. As in the past, such change is disruptive, bringing both challenges and opportunities."

— Phil Bourne, Stephenson Dean
University of Virginia, School of Data Science

DATAPALOOZA

PROGRAM

9:00 a.m. - 4:00 p.m.

REGISTRATION, CHECK-IN | 3rd Floor Lobby

9:00-9:30 a.m.

BREAKFAST | Main Lounge

9:30-10:15 a.m.

WELCOME | South Meeting Room

Phil Bourne, Dean, School of Data Science University of Virginia

GROWING DATA SCIENCE AT UVA

10:15-10:30 a.m.

BREAK

10:30-11:30 a.m.

CONCURRENT RESEARCH LIGHTNING TALKS

Data for Health Equity | Ballroom

⮞ **Examining Health Disparities and Vulnerable Populations Through Analysis of Public Datasets and Medical Record Data Through the National COVID Cohort Collaborative (N3C)**

Suchetha Sharma, Data Scientist, School of Data Science, UVA

⮞ **The Disability Community as a Health Disparity Population: Rationales for and Approaches to Engagement**

Rupa Valdez, Associate Professor of Public Health Sciences and Engineering Systems and Environment, UVA

⮞ **An International Study of the Prevalence and Structure of Neurobehavioral Symptoms in Individuals with Long COVID**

Paul B. Perrin, Professor of Data Science and Psychology, UVA

Critical Data Studies | South Meeting Room

⮞ **Critical Data Science and the Interdisciplinary Imagination**

Renée Cummings, Assistant Professor of Data Science, UVA

⮞ **Critical Data Studies Approaches to the Future of Money and Payment**

Lana Swartz, Assistant Professor of Media Studies, UVA

⮞ **Data as Representation**

Rafael Alvarado, Associate Professor of Data Science, UVA

Data Design | Virtual

Sponsored by Capital One

Virtual sessions can be accessed at datascience.virginia.edu.

➤ Connected Reality: Visualizing networks with interactivity

Alexander J. Gates, Assistant Professor of Data Science, UVA

➤ Learning from Interaction Traces: Representations, Models, and Predictions

Alvitta Ottley, Assistant Professor of Computer Science and Engineering, Washington University in St. Louis

➤ Addressing Data Overload with Collaborative and Explainable AI

Sara Riggs, Associate Professor of Systems Engineering, UVA

11:30-11:45 a.m.

BREAK

11:45 a.m. - 12:45 p.m.

CONCURRENT RESEARCH LIGHTNING TALKS

Data in Sports Science | Ballroom

Sponsored by the Sports Analytics Club Program

➤ Geometric Data Analysis in Sports

Stephen Baek, Associate Professor of Data Science, UVA

➤ Sports & Design: Reframing Sports Science Within the 4+1 Model

Natalie Kupperman, Assistant Professor Data Science, UVA

➤ Lessons Learned (Again) Via Sports Analytics

William T. Scherer, Professor and Associate Chair of Engineering Systems and Environment, UVA

Data in Neuroscience | South Meeting Room

➤ **Brain Science Is a Data Science**

John Darrell Van Horn, Professor of Psychology and Data Science, UVA

➤ **Interplay Between Dementia and Seizures**

Ifrah Zawar, Assistant Professor of Neurology, UVA

➤ **Consequences of Network Thresholding on Graph Theoretic Summaries of Functional Connectivity Data**

Teague Henry, Assistant Professor of Psychology and Data Science, UVA

Data in Environmental Resilience | Virtual

Virtual sessions can be accessed at datascience.virginia.edu.

➤ **Data Science of Hyperspectral Imaging**

William Basener, Professor of Data Science, UVA

➤ **Observing Air Pollution Inequality in Cities From Space**

Sally Pusede, Assistant Professor of Environmental Sciences, UVA

➤ **Trustworthy Representation Learning for Fish Identification**

Sheng Li, Assistant Professor of Data Science, UVA

12:45-1:45 p.m.

LUNCH

Lunch events are on a first-come, first-served basis.

Roundtable Discussions | Ballroom
MSDS Admissions Open House | South Meeting Room
PhD Admissions Open House | Room 389

1:45-3:00 p.m.

THE FUTURE OF ACADEMIC DATA SCIENCE | Ballroom

Co-sponsored by the Academic Data Science Alliance

Introduction

Jim Ryan, President, University of Virginia

Panel Discussion

Phil Bourne, Dean, School of Data Science UVA

Doug Hague, Executive Director, School of Data Science, UNC-Charlotte

H.V. Jagadish, Director, Michigan Institute for Data Science, University of Michigan

Micaela Parker, Executive Director, Academic Data Science Alliance (moderator)

3:00-3:45 p.m.

CAREERS IN DATA SCIENCE PANEL | Ballroom

Brant Horio, Fellow, Applied Research & Partnerships, LMI

Kelsey McDonald, Director, Ticket Analytics, Brooklyn Nets, BSE Global

Miriam Friedel, Senior Director, Machine Learning Engineering, Capital One

Reggie Leonard, Associate Director for Career Connections and Community Engagement, School of Data Science, UVA (moderator)

3:45-4:00 p.m.

BREAK

➤ *View presenter bios in the digital program.*

4:00-4:15 p.m.

DATA ENTREPRENEURSHIP CHALLENGE LAUNCH | Ballroom

Brant Horio, LMI, Fellow, Applied Research & Partnerships
See inside back cover for more details.

4:15-5:00 p.m.

CLOSING KEYNOTE: CATHY O'NEIL

Data skeptic and New York Times bestselling author Cathy O'Neil is a thought leader exploring the realities and dangers of social networking, the consequences of algorithm design, and defending human dignity in the context of predatory capitalism. A prolific voice in academia and the private sector, O'Neil is the New York Times bestselling author of "Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy," which was a semifinalist for the National Book Award. She is also a columnist for Bloomberg Opinion, a renowned blogger, and her expertise was featured in the critically acclaimed documentary "The Social Dilemma." O'Neill is the Founder of ORCAA, a consultancy providing algorithmic auditing services focused on safety, fairness, and principled use of data, and launched the Lede Program in Data Journalism at Columbia University. Her latest book, "The Shame Machine: Who Profits in the New Age of Humiliation," investigates how shame functions as a tool across sectors including government, the healthcare system, and the wellness industry. With a mathematics Ph.D. and background in finance and AdTech startups, O'Neil offers unparalleled insight and analysis about the challenges that lie ahead for individuals and businesses in our increasingly algorithmic world.

5:00-6:00 p.m.

CLOSING RECEPTION | South Meeting Room

Datapalooza is an annual conference hosted by the University of Virginia's School of Data Science that brings together more than 500 attendees from across higher education, industry, and the greater data science community. First launched in 2015, Datapalooza has evolved from a research exposition to a platform where anyone interested in data science can connect with experts and expand their knowledge and skill sets. Designed for students, faculty, professionals, and friends of data science, Datapalooza aligns with the core values of the School of Data Science—to further discovery, share knowledge, and make a positive impact on society through collaborative, open, and responsible data science research and education.

UVA DATA SCIENCE

THE SCHOOL OF DATA SCIENCE

Founded in 2019, the University of Virginia School of Data Science—the first of its kind in the nation—is guided by common goals: to further discovery, share knowledge, and make a positive impact on society through collaborative, open, and responsible data science research and education. The School positions the University and our community to play national and international leadership roles in the global digital future.

Robust research is conducted in all four Domains of Data Science across multiple areas of practice and in collaboration with other schools and departments. Educational programs include a Data Science Minor, an M.S. in Data Science in both residential and online formats, a Ph.D. in Data Science, and non-degree programs for lifelong learners. The School plans to launch a B.S. in Data Science in Fall 2024 pending approvals.

Construction of its new 60,000-square-foot home is on schedule to open in early 2024 and will sit at the intersection of Emmet Street and Ivy Road. The new building will stand at a vital intersection for the University, connecting Central Grounds with the athletics complex and fields, the Law School, and the Darden School of Business. A vibrant hub built to foster collaboration, the building will bring people together from across the University, Charlottesville, and beyond.

Start Your Journey
with the School of Data Science