Center for Data and Computing

AT THE UNIVERSITY OF CHICAGO

# Director's Message

Data science is a crossroads, connecting industry, government, and academia, different research disciplines, and technical expertise with field knowledge. Data science establishes a common language and purpose around the problems we all face when manipulating and analyzing data, and enables powerful tools that bring people together and extract new insights, knowledge, and value from the growing sea of data.

At the University of Chicago, the Center for Data and Computing (CDAC) is the nexus where researchers from computer science and statistics collaborate with domain scientists to solve real-world problems and advance the field of data science. Unlike other centers that focus solely on methodology or application of existing tools, CDAC nurtures cross-disciplinary conversations that inspire new scientific inquiry. Researchers using similar approaches or studying the same data modalities in different disciplines discover and solve common problems, constructing the new science of deriving insights and knowledge from datasets of all sizes and degrees of complexity.

CDAC supports these goals through several exciting initiatives.

- **The Discovery Grant** program has seeded a total of 21 projects, in areas spanning high-energy physics, climate science, medical imaging, artistic representation, and much more. (pgs. 3-11)
- **Our Distinguished Speaker Series** brought the data science community across and beyond UChicago together for a series of stimulating dispatches from the frontiers of the field. (pgs. 16-17)

> "Data science establishes a common language and purpose around the problems we all face when manipulating and analyzing data."
>
> **Nick Feamster**, Faculty Director, Neubauer Professor of Computer Science and The College

Through our educational research programs, we encourage and broaden participation in data science, AI, and other computational approaches from an early age. (pg. 18)

- **The Data and Computing Summer Lab** program connects high school and college students with cutting-edge research projects from UChicago faculty.
- **Our Data Science and Applied AI Postdoctoral Scholars Program** allows early-career researchers to explore topics at the intersection of computer science, data science, and a broad array of other disciplines.

In the last year, we also opened our new Internet of Things (IoT) Lab (pgs. 14-15), where students and faculty can experiment with a wide range of "smart" devices and datasets, studying applications from Internet security and privacy to personal health. Soon, we plan to launch new initiatives in data journalism, open source software, and broadband access equity, and expand our Industry Affiliate Program, which connects businesses with CDAC research, emerging technologies, and expertise (pg. 19).

We invite you to learn more about our activities in this report, and to contact us to work together. We are so excited about what CDAC has achieved so far and about what the future holds for data science research at the University of Chicago.

Nick Feamster
Faculty Director, Center for Data and Computing
Neubauer Professor of Computer Science and The College
University of Chicago

# About CDAC

The Center for Data and Computing (CDAC) is an intellectual hub and incubator for data science and artificial intelligence research at the University of Chicago.

We catalyze new discoveries by fusing fundamental and applied research with real-world applications. As the focus point for data science research on campus, we engage leaders from industry, government, and academia through innovative events and partnerships to spark new collaborations and technological discoveries.

The mission of CDAC is to address important scientific and societal questions through coordinated advances in applications, models, algorithms, and platforms. To execute this goal, we:

- **Incubate** question-driven, interdisciplinary research of an intellectual scope that is broader than what is typical of a single academic department or school.
- **Convene** a multidisciplinary community to advance science and discovery through data and computation, with programs including workshops, talks, and internships.
- **Partner** with groups across the science and technology ecosystem both on campus and beyond, including national laboratories, private companies, and government agencies.

**Read more** about CDAC staff and programs

## Impact

| 29 | $1.7 | 66 | 33 | 25 | 58 |
|---|---|---|---|---|---|
| RESEARCH PROJECTS & WORKSHOPS FUNDED | MILLION GRANTED TO PROJECTS AND WORKSHOPS | RESEARCHERS FUNDED | DIVISIONS/UNITS/ DEPARTMENTS REPRESENTED IN PROJECTS | EVENTS HELD ON UCHICAGO CAMPUS | STUDENTS ENROLLED IN CDAC SUMMER LAB 2019 AND 2020 |

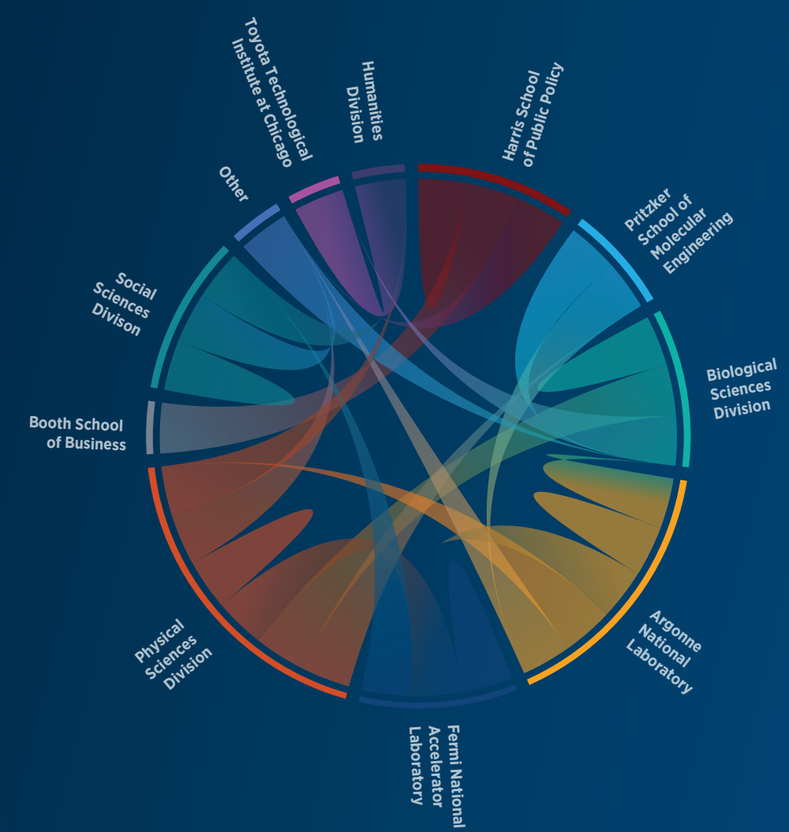
* November 2018—June 2020

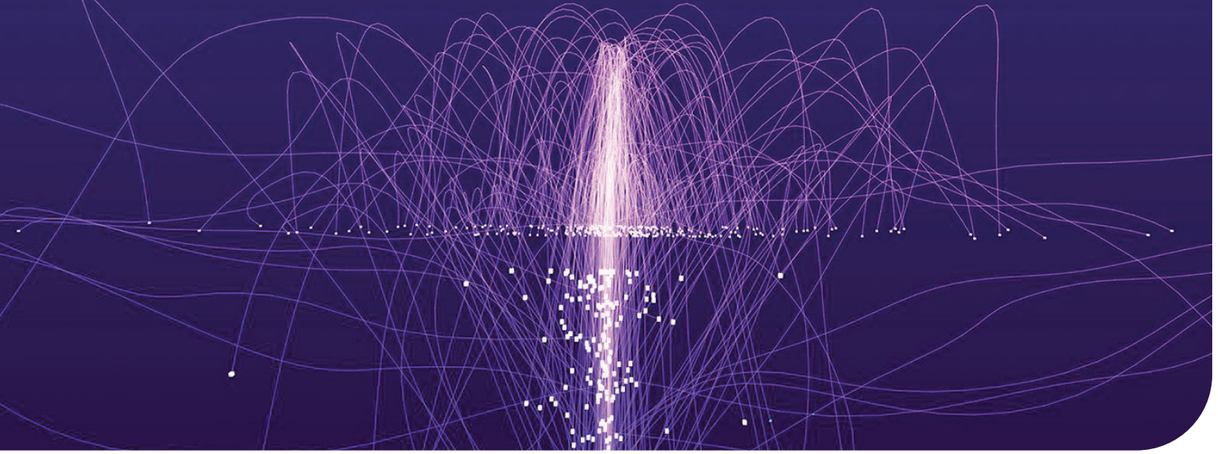


# Research Overview

Through its Discovery Grant seed funds and other initiatives, CDAC facilitates interdisciplinary research at the frontiers of data science, artificial intelligence, and other computational approaches. Our programs enable ambitious, early-stage research that would not otherwise be possible, connecting researchers across departmental and institutional boundaries to simultaneously tackle domain scientific challenges and develop new generalizable data science methods and tools. On the following pages, read about these innovative projects and their broader significance for science, industry, and society.

*This chord diagram represents how CDAC funding has connected more than 60 researchers across ten divisions, professional schools, and national laboratories to work on interdisciplinary, ambitious research.*





# AI & Machine Learning

The scientific toolbox of artificial intelligence—machine learning, neural networks, deep learning, and more—offers to unlock new discoveries in all fields and industries, from high-energy physics and humanities to finance and medicine.

The Center for Data and Computing views data science and artificial intelligence as closely entwined. Advances in data acquisition, processing, and engineering enable more powerful applications of AI. New machine learning tools create new challenges and opportunities for data science innovation. As organizations seek to apply AI techniques on unstructured, streaming, or massive data, new approaches and methods are needed.

CDAC projects reflect the broad and deep interest in AI and machine learning applications in modern science. Our research spans from the world's largest physics experiments to fields such as archeology, humanities, medicine, and biology. In each project, multidisciplinary teams of researchers tackle a domain-specific problem with new approaches that could find wider purchase in both science and industry.

### Key Takeaways

- ✓ AI and data science are deeply entwined research areas, with each field driving innovation in the other.
- ✓ New AI tools developed for scientific discovery can also propel real-world applications such as finance, medicine, and manufacturing.
- ✓ CDAC projects include decoding ancient writing, spotting rare events in terabytes of physics data, and detecting bias in text and images.

### WHAT'S NEXT

*By exploring these problem-driven research questions, CDAC researchers pursue not only groundbreaking scientific discovery, but real-world applications both anticipated and unexpected. With AI and data science at the core of the most exciting emerging technologies, today's scientific use case could yield tomorrow's killer app.*

## PROJECTS

### Extracting meaning from non-traditional documents

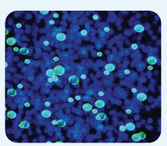
A new model that reads the cuneiform writing on thousands of clay tablets from 25 centuries ago could be the first step towards a universal translator for ancient texts and new methods for reading unstructured media. Sanjay Krishnan, Computer Science; Susanne Paulus, Humanities; Sandra Schloen, Oriental Institute; Miller Prosser, Oriental Institute

### Real-time massive data processing

Applying recent advances in artificial intelligence, to create new "triggers" for the Large Hadron Collider that flag potentially interesting anomalies for physicists seeking evidence of dark matter and new subatomic particles. Yuxin Chen, Computer Science; David Miller, Physics

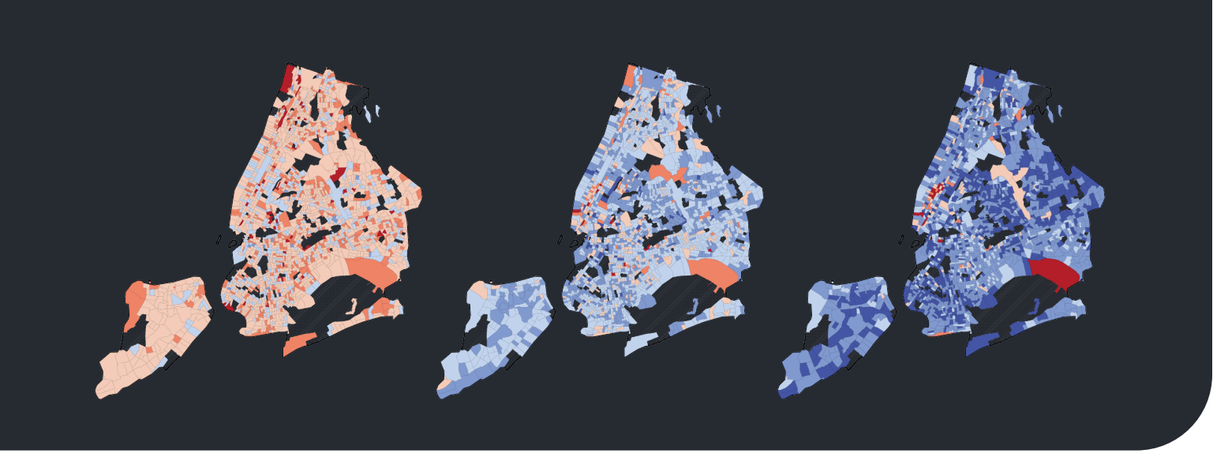
### Modeling patient behavior from medical data

Applying unsupervised feature clustering to identify and model patient clinical behaviors from EHR data, allowing medical providers to to make quicker, better decisions about patient care and prevent adverse events. Heather Zheng, Computer Science; Samuel Volchenboum, Medicine



### Finding the microbiome needle in a haystack

Combining high-throughput genetic sequencing and machine learning approaches to find plasmids—small DNA molecules that may hold the key to drug resistance, infection and other critical functions of the microbiome for human health. Michael Yu, TTIC; A. Murat Eren, Medicine



# Social Data Analytics & Prediction

The potential of data science to better society has only just begun. CDAC scientists apply novel tools and approaches to unprecedented data on the economy, policy outcomes, and the social factors that influence health and prosperity, producing predictive models and insights that reduce inequities and improve lives.

In fields such as economics, political science, sociology, and psychology, researchers are discovering new ways to apply data science, while new forms of data and analysis increase the demand for data science advances. As rich new datasets from governments, social media, historical texts, and other sources become available, new methods will be needed to transform this information into meaningful discoveries, predictions, and decision-making tools.

CDAC believes that social data analytics and prediction hold immense promise for real-world impact. We fund new approaches that enable social scientists to utilize newly accessible sources of data and tackle their largest research challenges. This research produces insights, forecasts, and tools that advise physicians, economists, policymakers, and other experts on how to make effective data-driven decisions that benefit individuals and society.

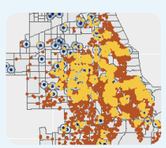
### Key Takeaways

- ✓ Social science has reached maturity as a data-intensive field, and needs novel tools to tackle its deepest research challenges in economics, policy, and other areas.
- ✓ New data from social media, governments, and other sources present great promise, as well as technical obstacles in privacy, security, and data discovery.
- ✓ CDAC projects develop new models for risk prediction, policy guidance, and data discovery that can help experts make more effective decisions.

### WHAT'S NEXT

*Realizing the promise of social data includes protecting the rights of the vulnerable populations this research often addresses. We're working with leading scientists on developing new methods that preserve the power of data science without compromising the privacy and security of the people these efforts hope to assist.*

## PROJECTS

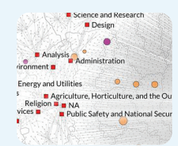


### Risk prediction based on spatial, social, and medical data

By studying how community stressors relate to cardiovascular disease, this project develops a prediction model to identify patients at highest risk, to more efficiently target medical and social interventions to individuals and neighborhoods. Corey Tabit, Medicine; Marynia Kolak, Center for Spatial Data Science; Elizabeth Tung, Medicine.

### The unequal ripples of economic shocks

How do income instability and access to resources shape racial inequality? Researchers use anonymized data from millions of bank accounts to measure income and spending and study how households cope with difficult economic shocks. Peter Ganong, Harris School of Public Policy; Damon Jones, Harris School of Public Policy; Pascal Noel, Booth School of Business.

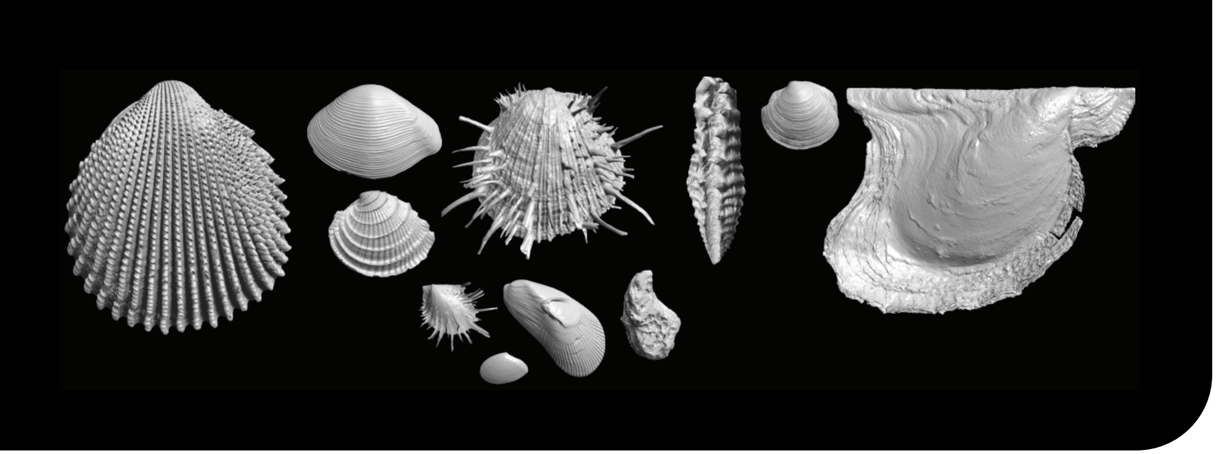



### Transforming job data into skill development guidance

With unprecedented access to the complete LinkedIn dataset, this project identifies mixtures of knowledge, skills, and relationships that maximize income and future potential for individual participants in the knowledge economy. James Evans, Sociology; Eamon Duede, CHSS; Lingfei Wu, Knowledge Lab; Matthew Gee, Center for Data Science and Public Policy.

### A pipeline for reconstructing events from audio

Using a public archive of law enforcement radio communications, this project builds a data processing pipeline to transform audio into transcripts of discrete policing incidents so that researchers can better understand the factors driving adverse outcomes. Margaret Beale Spencer, Comparative Human Development; Karen Livescu, TTIC.



# Image & Text Analysis

More and more of the data collected by scientists today is in photo or video form, driving demand for new techniques that extract information from images. CDAC seeds projects in medicine, physics, and the visual arts that build powerful approaches for computer vision and automated image analysis.

Data science has escaped the spreadsheet and expanded into the domain of unstructured data, including photos, video, and handwritten text. Innovation in computer vision and natural language processing have opened new possibilities for extracting information from these media, but much work remains to bring these approaches up to even human capabilities of detecting meaning instead of mere recognition.

With a problem-focused approach, CDAC projects realize and expand the potential of image and text analysis for immediate challenges in medicine, biology, environmental protection, and education. Partnerships between domain experts and computer scientists explore new methods to detect actionable information from satellite images, medical scans, and illustrations which will create new opportunities for similar analysis tasks in other fields.

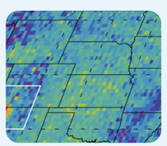
## Key Takeaways

- ✓ Detecting and extracting information from visual content, including photos, videos, and illustrations, is an exploding growth area for data science and AI.
- ✓ Computer vision and natural language processing research is moving beyond recognition to understand meaning, context, and other complex concepts.
- ✓ Problem-focused CDAC projects forge new tools for image analysis in medicine, environmental science, and other fields that will transfer to broader application.

**WHAT'S NEXT**

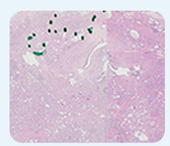
*The proliferation of cheap cameras and remote sensors create new challenges for image analysis: evaluating large-scale streaming video in real time for applications such as autonomous driving and threat detection. CDAC works closely with UChicago Computer Science experts developing new technologies for streaming video processing and analysis.*

PROJECTS



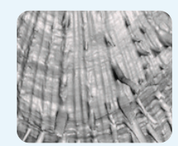
### Monitoring pollution with machine learning and remote sensing

This project develops a data-driven approach to methane emissions monitoring and regulation, building a supervised machine learning model that predicts methane leaks at facilities and targets the collection of high-resolution emissions measurements by environmental agencies. Thomas Covert, Booth School of Business; Michael Greenstone, Economics



### Improving computer-assisted disease diagnosis

Two CDAC projects combine medical and computer science expertise to create computer vision approaches that improve diagnostic accuracy of prostate and thyroid cancers to avoid missing tumors and unnecessary treatment and surgeries. Xavier Keutgen & Peter Angelos, Surgery; Maryellen Giger, Aritrick Chatterjee & Aytekin Oto, Radiology; Michael Maire, Computer Science



### Deep learning in three dimensions

Using modern 3D imaging technology, this project quantifies large-scale variations in bivalve shell morphology and statistically analyzes how these valuable marine species respond to global climate change through geometric deep learning systems. Tingran Gao, Statistics; David Jablonski, Geophysical Sciences

### Detecting implicit bias in book images and text

This project estimates the extent and implications of children's exposure to race- and gender-coded messages in books through a human-directed, machine-implemented content analysis that measures implicit messages about race and gender in visual content. Anjali Adukia, Harris School of Public Policy; Hakizumwami Birali Runesha, Research Computing Center

# Software & Technologies

To reach their full potential outside of the laboratory, data science and artificial intelligence methods must be incorporated into accessible technology and tools. CDAC funds several projects that are building mobile applications, wearable technology, and software that can assist doctors, artists, archeologists, and other experts in their work.

Software enables the transition of computer science and data science research to practice and a broader user base. In collaboration with the CDAC software engineering team, our Discovery Grant projects produce open-source code that can be shared and expanded upon by the research and programming communities, enabling the adaptation of these approaches to new and unanticipated challenges.

Other CDAC projects go a step further, creating new devices, applications, and technologies that extend their discoveries beyond the research lab. These inventions bring data-driven decision making to doctors, create new wearable devices for gathering fresh streams of health data, and create enhanced computer vision capabilities for art and science.

### Key Takeaways

- ✓ Software and technologies bring the computer and data science innovations of the laboratory to the broader community for application to real-world problems.
- ✓ To encourage outside collaboration, CDAC projects publish open source code for software generated by research projects.
- ✓ CDAC researchers also create new technologies, including wearable devices and mobile applications for art, medicine, and biology.

### WHAT'S NEXT

*Sharing the tools of data science and AI with more researchers, students, businesses, and the public will unlock new discoveries and exponentially amplify the impact of these powerful approaches. CDAC will continue to support open source initiatives for its funded projects, and through its Internet of Things (IoT) lab (see pg. 14), explore novel uses of "smart" technologies for public health, child development, and other areas.*

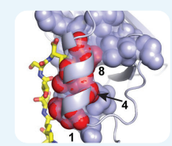
## PROJECTS

### Computer vision that extracts meaning from images

By teaching neural networks to separate the content and style of an image, this project advances the field of computer vision and perception. Their app, DeepStyle, transforms photos into works of art using diversified filters & styles. Jason Salavon, Visual Arts; Gregory Shakhnarovich, TTIC

### Mobile decision-making systems for the developing world

A medical decision making system designed for mobile devices that allows physicians in Nigeria and other areas lacking the internet to access basic medical records and real-time information on the spread of diseases. Andrey Rzhetsky, Medicine/Human Genetics; Pedro Lopes, Computer Science



### Data-driven protein engineering

This project created a platform to rationally design new protein candidates, a "gene machine" to prototype designs, and high-throughput assays to experimentally test the designed proteins. The work resulted in a biotech startup called Evozyne. Andrew Ferguson, Molecular Engineering; Rama Ranganathan, Biochemistry and Molecular Biology

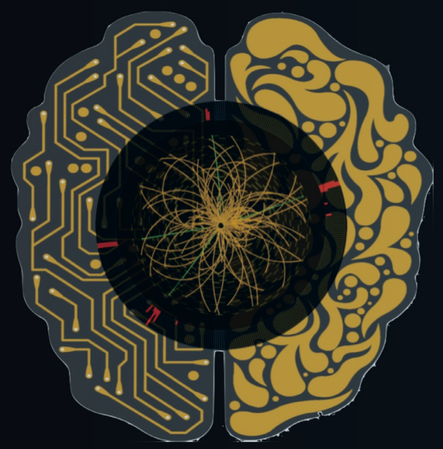
### Wearable sweat sensors for monitoring health

Sweat contains biomarkers that indicate conditions such as lung infections, depression, and tuberculosis. Researchers created a new wearable device that continuously monitors these factors in real time, opening new avenues for medicine. Pedro Lopes, Computer Science; Sihong Wang, Molecular Engineering

# AI + Science

The emerging field of artificial intelligence holds great promise for improving how science is conducted, through innovations in data analysis, image classification, hypothesis generation, and more.

In early 2019, an AI Joint Task Force was formed by members of the University of Chicago, Argonne National Laboratory, Fermi National Accelerator Laboratory, and Toyota Technological Institute at Chicago to encourage new research interactions and educational experiences across the institutions. Grants are administered by the Center for Data and Computing and funded by the UChicago Office of Research and National Laboratories.



## Workshops

### When Technology Transforms Society: Considering the Societal and Ethical Impacts of Quantum Computing and AI

Chihway Chang & Eamon Duede, UChicago; Daniel Bowring & Brian Nord, Fermilab

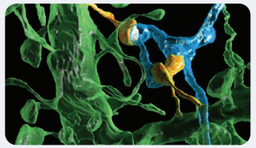
### AI + Measurement

Eric Jonas & Yuxin Chen, UChicago; Jayakar Thangaraj, Fermilab

### AI+Science = CS4All High School Primer Workshop

Julia Lane, Nick Feamster, and Kyle Chard, UChicago; Michael Papka, Meridith Bruozas and John Domyancich, Argonne; Brian Nord, Fermilab



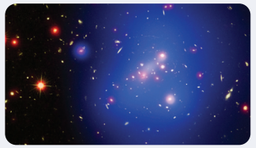


### Neural Network Algorithms to Decode the Octopus Neural Network

Peter Littlewood, UChicago; Nicola Ferrier, Argonne; Bobby Kasthuri, UChicago/Argonne

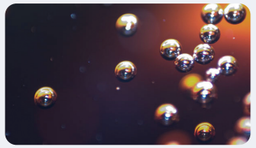
### Is Climate Change Changing Clouds?

Rebecca Willett, UChicago; Ian Foster, UChicago/Argonne; Elisabeth Moyer, UChicago; Michael Maire, UChicago



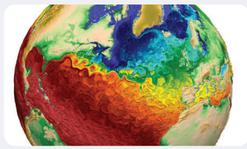
### Automated Experimental Design for Cosmic Discovery

Brian Nord, Fermilab; Yuxin Chen, UChicago



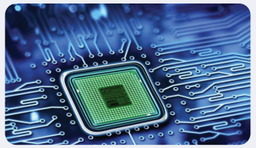
### Artificially Intelligent Electrochemistry

Chibueze Amanchukwu, UChicago; Rajeev Assary, Argonne



### Learned Emulators of Physics Simulations

Rebecca Willett, UChicago; Dana Mendelson, UChicago; Prasanna Balaprakash, Argonne; Jiali Wang, Argonne; Rao Kotamarthi, Argonne



### Real-Time Adaptive Deep Learning with System-on-Chip Devices for Discovery Science

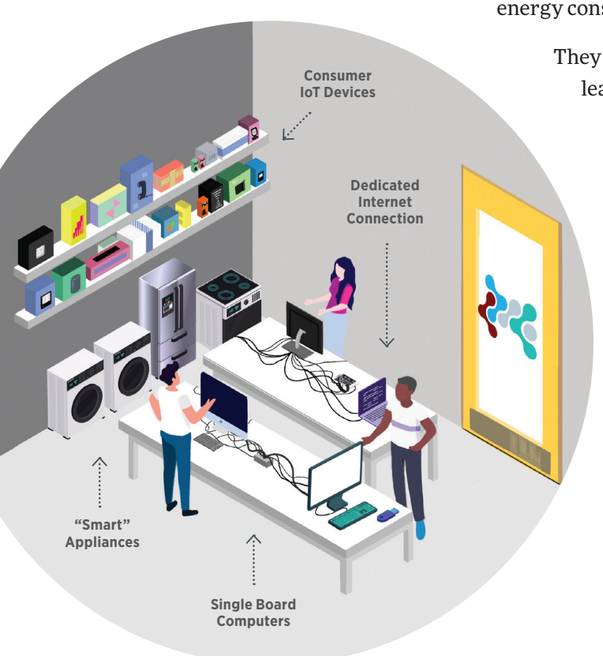
David Miller, UChicago; Nhan Tran, Fermilab; Andrew A. Chien, UChicago

**Read more** about the AI + Science initiative

# Internet of Things Lab

An open facility for UChicago students and faculty to experiment with the latest connected devices and datasets for research and applications.

Connected devices now exist in many homes, offices, and public places. These "smart" technologies — sometimes referred to as the Internet of Things, or IoT — promise not just improved consumer convenience but also new innovation for medicine, psychology, energy conservation, and other applications.




They also offer an accessible platform for people who are learning computer science and data science to explore concepts such as networking, machine learning, databases, human-computer interaction, and cybersecurity, and the opportunity to take that knowledge out of the laboratory and apply it to the real world, from smart homes to smart cities.

The immense potential of this technology is why we created the CDAC Internet of Things (IoT) Lab. By better understanding IoT devices, the data they collect, and both the benefits and risks of smart device "data exhaust," we can realize the potential benefits of this technology while also understanding and mitigating the associated privacy risks.

**Learn more** about our IoT Lab

## Explore Data and Computer Science

Attend a workshop to learn how to work with IoT devices

Unbox and learn how to access data from a smart device

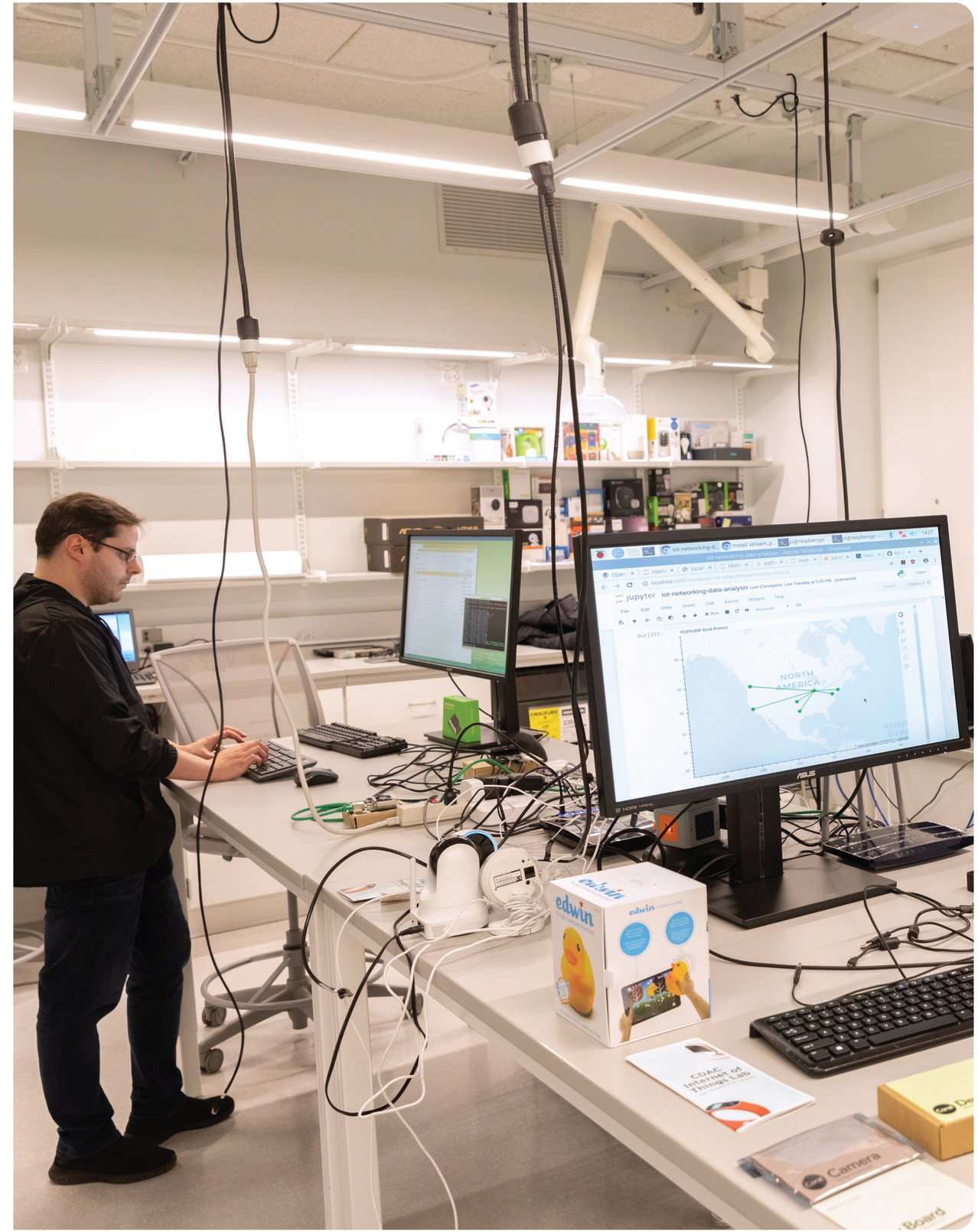
Design a web app for a class project

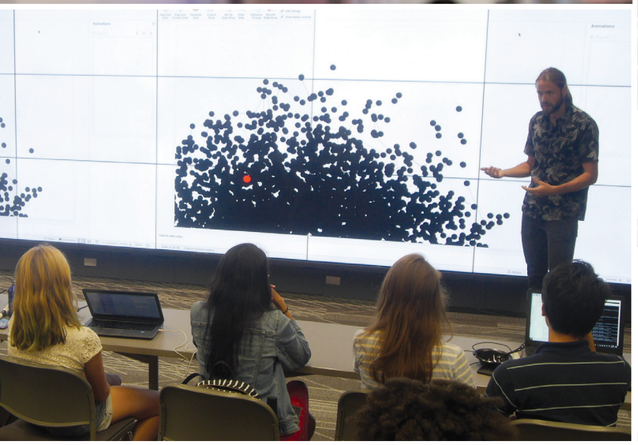
## Boost Interdisciplinary Research

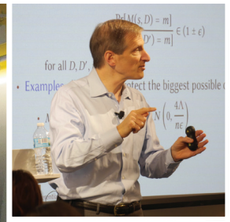
Develop a research question where IoT technology could help

Work with IoT Lab Staff on finding the right device and data

Publish a paper and software to protect consumer data







# Events

CDAC creates a community for data science and artificial intelligence research at the University of Chicago, hosting talks, workshops and other gatherings that spark new collaborations and technological discoveries.

## Distinguished Speaker Series

This series brought leading data scientists from academia and industry to the University of Chicago in Spring and Fall 2019 for engaging talks and student roundtables about their work on the frontier of applied data science.

Fernando Perez, UC Berkeley/Project Jupyter founder, "Scientific Open Source Software"

Alexander Gray, IBM, "Foundations for Automated Data Science"

Gary King, Harvard, "Statistically Valid Inferences from Privacy Protected Data"

Victoria Stodden, University of Illinois, "Reproducibility in Computational Science"

Juliana Freire, New York University, "Democratizing Urban Data Exploration"

Michael Cafarella, University of Michigan, "Data-Intensive Systems for the Social Sciences"

Tandy Warnow, University of Illinois, "Theoretical and Empirical Advances in Large-Scale Species Tree Estimation"

Alex Weinert and Maria Puertas Calvo, Microsoft, "Defense Against the Dark Bots: How Microsoft Protects 1 Billion Users with Machine Learning"

## Data Therapy

A Summer 2019 workshop series that invited University of Chicago researchers to demonstrate computational tools—in spatial data analysis, natural language processing, and scientific reproducibility— that advanced their science.

## Data Dispatches

For the remote Spring 2020 quarter at the University of Chicago, we organized a series of online events where CDAC Discovery Grant recipients presented work-in-progress reports on their innovative research.

## Workshops & Pitch Sessions

From "matchmaking" events organized around specific calls for proposals in AI + Science and COVID-19 research to workshops on the Internet of Things & Smart Cities and the exploration of AI's future through science, art, and games, CDAC convenes the Chicago scientific community for gatherings that spark creativity, collaboration, and innovation.

**View videos** of CDAC events at our YouTube channel

# Training the Future

Programs that encourage and broaden student participation in data and computational science and provide interdisciplinary data science experience for early-career scientists.

## Data and Computing Summer Lab

Our summer research program provides high school and undergraduate students with the opportunity to earn experience and contribute to real projects with faculty across the University of Chicago.

In this immersive 10-week program, high school and undergraduate students are paired with a faculty mentor to work on data science research projects across a variety domains and applications, such as computer science, computational social sciences, biomedicine, computer vision, machine learning/AI, human-computer interaction, networks, and more.

## Data Science and Applied AI Postdoctoral Scholars

A unique program that provides early-career scientists with the opportunity to pursue original research on significant questions in data science, while also developing specialized domain expertise in one or more complementary areas such as behavioral science, healthcare, and public policy.

*The ZhengTong Fellowship Fund, which supports the Data Science and Applied AI Postdoctoral Scholars program, was established with generous support from ZhengTong Group.*

> "The CDAC Summer Lab was a great experience for me to have exposure to the applications of computer science in other domains and gain technical knowledge. My projects have helped me hone my research and communication skills in writing reports, presenting to others, and submitting to a conference, which would not have been possible without the opportunities CDAC has provided."
>
> **Aarthi Koripelly**, 2019 and 2020 Summer Lab Research Assistant



# Engagement Opportunities

CDAC is a university-wide focus point for launching new research, training the next generation of computing leaders, and developing valuable prototypes and software.

## Industry & Partnerships

**CDAC Industry Affiliates Program** connects companies to over 66 technical experts from across 33 units and departments. Members are given unprecedented access to cutting-edge research, emerging technologies, and talent acquisition opportunities that can spur innovation on future trends and business challenges in the digital era.

**Professional Education Programs**
Demand for professionals with expertise in machine learning, cybersecurity, and analytics is exploding. Designed for working professionals, CDAC professional education programs provide an opportunity to learn from world-renowned experts through innovative virtual certificate programs or intensive in-person courses. These programs empower professionals and researchers with in-demand skills and knowledge to meet the opportunities and challenges of the data revolution. All courses are taught by University of Chicago faculty and managed by CDAC.

## Research Funding

Discovery Grants provide risk-tolerant seed funding for innovative data science projects intended to achieve a clear impact on major scientific, scholarly, and societal questions. Our Discovery Challenge program accelerates the research-to-impact process through the development of research-based, use-inspired data science technologies and tools.

## Giving

Philanthropic giving directly supports high-risk, high-reward data science research, as well as critical financial support for students and programs to broaden participation in computer science, AI, and data science. Please consider giving to support this transformative work. Donations can be made online through UChicago Giving or by contacting Julia Lane, Executive Director, cdac@uchicago.edu.

**Learn more** about ways to work with CDAC

# Leadership & Staff

## CDAC Team

**Nick Feamster**
*Faculty Director, Center for Data and Computing; Neubauer Professor of Computer Science and The College*

**Julia Lane**
*Executive Director, Center for Data and Computing*

**Jesse London**
*Senior Programming Specialist, Center for Data and Computing*

**Guilherme Martins**
*Senior Programming Specialist, Center for Data and Computing*

**Rob Mitchum**
*Associate Director of Communications for Data Science and Computing*

**Katherine Rosengarten**
*Administrative Specialist, Center for Data and Computing*

## Steering Committee

**Luís M. A. Bettencourt**
*Director, Mansueto Institute*

**James Evans**
*Professor of Sociology; Director, Knowledge Lab*

**Nick Feamster**
*Faculty Director, Center for Data and Computing; Neubauer Professor of Computer Science and The College*

**Andrew Ferguson**
*Associate Professor of Molecular Engineering*

**Michael J. Franklin**
*Liew Family Chair of Computer Science; Senior Advisor to the Provost for Computation and Data Science*

**Chris Kennedy**
*William H. Colvin Professor and Chair, Department of Linguistics and Humanities Collegiate Division*

**Julia Lane**
*Executive Director, Center for Data and Computing*

**Karen Livescu**
*Associate Professor, Toyota Technological Institute at Chicago*

**Sendhil Mullainathan**
*Roman Family University Professor of Computation and Behavioral Science, Chicago Booth*

**Dan Nicolae**
*Chair and Professor, Statistics; Professor, Human Genetics, Medicine, Section of Genetic Medicine and the College*

**Samuel L. Volchenboum**
*Associate Professor of Pediatrics & Associate Chief Research Informatics Officer, UChicago Medicine*

**Rebecca Willett**
*Professor, Statistics, Computer Science, and the College*

Text: Rob Mitchum
Design: Ryan Reynolds/ Philament
Photos: Jean Lachat, Colin Lyons, Tyler Mallory, Rob Mitchum
Graphics: Damon Hines, Ryan Reynolds / Philament


The Center for Data and Computing partners with the UChicago Department of Computer Science and is co-located with the department in the John Crerar Library Building. But as an initiative of the Office of the Provost, the scope of CDAC stretches beyond Computer Science, facilitating research partnerships and programming for all UChicago divisions, departments, and schools. CDAC is also part of an ambitious, multi-year expansion of computer and data science efforts at the University of Chicago.

**Center for Data and Computing at UChicago**
John Crerar Library Building
5730 South Ellis Avenue, Suite 263
Chicago IL 60637
Main: 773.834.2985
cdac@uchicago.edu

**Sign up** for updates from our newsletter