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DECEMBER 4-5, 2018 | BOSTON, MA
BOSTON SEAPORT WORLD TRADE CENTER



DECEMBER 3-5, 2018

Boston Seaport World Trade Center

# PRESENT A POSTER & SAVE \$50

Cambridge Innovation Institute encourages AI World attendees to gain further exposure by presenting their work in the poster sessions. Posters will be seen by our international delegation, representing leaders from top AI leaders from research, finance, hospitals, robotics, manufacturing, hospitality, telecommunications, retail, energy, pharmaceutical, biotech, academic, government institutions and more!

To secure a poster board and inclusion in the conference materials, your abstract must be submitted, approved and your registration paid in full by October 28, 2018. Please see **AlWorld.com/Posters** for more information.

Note: Posters should be portrait orientation, with maximum dimensions of 36 inches wide (3 feet) x 48 inches high (4 feet).

\* We reserve the right to publish your poster title and abstract in various marketing materials and products.

Poster inquiries: jring@AlWorld.com





### Recommended Pre-Conference Events

#### **MORNING** Al World Executive Summit

Is your business ready for harnessing AI and intelligent technologies? How will AI impact your customers, partners, and employees? These big questions and many more are on the minds of business leaders, CEOs, CMOs, CDOs, and CIOs. The AI World Executive Summit provides business executives with a strategic look at the state of the practice in enterprise AI across multiple vertical industries, including Healthcare and Financial Services.



#### AFTERNOON SEMINAR: AI in Personalized Medicine and Digital Health

Seminar Chairperson: Kamal Jethwani, MD, Senior Director, Connected Health Innovation, Partners HealthCare, Assistant Professor, Harvard Medical School

#### Personalized Medicine: A Vision for Research and Education

Dimitris Bertsimas, PhD, Operations Research Center and Sloan School of Management, MIT

Medicine as taught in medical schools and as practiced today is not personalized. We present a research program to develop an algorithmic theory of personalized medicine applied to the major human diseases. Using electronic medical records and genomic data and in collaboration with major medical centers and medical doctors, we present our ongoing efforts to develop algorithms that propose personalized treatments for individual patients that suffer from these diseases. The new personalized medicine methods are based on new cutting-edge Machine Learning algorithms that use modern optimization methods and improve upon classical approaches. We report on our work on diabetes, obesity and cardiovascular disease. We further discuss the implications of our work on the education of the next generation of doctors.

#### Machine Learning Based Patient Subgroup Identification for Precision Medicine

Jie Cheng, PhD, Associate Director, Data & Statistical Sciences, Abbvie
Central to precision medicine is the ability to effectively identify patient subgroups that are likely to benefit from a certain treatment. However, due to multiple testing, subgroup identification is well known for its tendency to produce spurious results if not done with extreme care. In this talk, we will present a machine learning based patient subgroup identification approach and demonstrate its effectiveness using randomized clinical trial datasets.

#### Digital Health: The Use of Machine Learning and Deep Learning Techniques to Identify Patients and to Personalise Interventions

Kamal Jethwani, MD, Senior Director, Connected Health Innovation, Partners HealthCare. Assistant Professor. Harvard Medical School

The enormous amounts of data our healthcare systems hold can powerfully assist us in understanding which patients need help, and what type of help. Al can unlock this power by helping us stratify patients based on their risk for poor health outcomes, and connecting them to interventions that would be most meaningful to them. Learn about risk stratification, digital biomarkers, and strategies to design engaging digital health tools using Al.

#### **Al-Enabled Digital Biomarker Development**

Wei-Yi Cheng, PhD, Senior Data Scientist, Roche

Digitalization has enabled innovative ways to understand neurological diseases. Smartphone-based remote monitoring poses as a potential solution to provide long-term, objective assessment of gait and mobility in patients with motor disorders such as Parkinson's Disease. Using Deep Learning, we successfully translated the sensor data collected by mobile phones into meaningful mobility information. We will also discuss some other potential applications of Deep Learning to help drug development.

### Introducing New Standards for Patient Care: The Role of AI in Precision Oncology

Amélie Boichard, PharmD, PhD, Project Scientist, Center for Personalized Cancer Therapy, UCSD Moores Cancer Center

The development of high-throughput molecular analyses and specifically targeted anti-cancer drugs leads to new expectations for cancer patients that can now receive personalized and optimized treatment options, potentially demonstrating favourable outcomes. Big data are a major driver in the development of Precision Oncology, and efficient analysis methods are needed to transform numerous information sources into actionable knowledge. Integrating algorithmic-generated techniques into decision-making will soon advance the standard-of-care in oncology practice.

### Reduction of High-Dimensional Genomic RNA-seq Data to Lower Dimensional Latent Space by Deep Learning

Shanrong Zhao, PhD, Director, Computational Biology, Pfizer
Biology is complex, consisting of multiple nonlinear and often redundant
connections among genes, and when a specific pathway aberration
occurs, the downstream response to the perturbation is captured in the
transcriptome. The VAE (Variational autoencoder) and GANs (Generative
Adversarial Networks) can discover nonlinear explanatory features and
have emerged as powerful deep leaning methods for reduction of highdimensional RNA-seq data into lower dimensional latent space.

#### Interactive Panel Discussion:

#### Al in Personalized Medicine and Digital Health

Panelists:

Amélie Boichard, PharmD, PhD, Project Scientist, Center for Personalized Cancer Therapy, UCSD Moores Cancer Center Jie Cheng, PhD, Associate Director, Data & Statistical Sciences, Abbvie Dimitris Bertsimas, PhD, Operations Research Center and Sloan School of Management, MIT

#### Breakout Roundtable Discussions

Join AI World speakers and moderators in lively table topic discussions covering a variety of critical AI business and technology topics. An informal, small group format allows participants to meet potential collaborators, share examples from their own work, vet ideas with peers, and be part of a group problem-solving endeavor.

# Al in Healthcare

**DECEMBER 4-5, 2018** 

#### ADVISORY BOARD MEMBERS:

Peter Henstock, PhD, AI & Machine Learning Lead, Pfizer Dany De Grave, Senior Director, Innovation Programs and External Networks, Sanofi David Ledbetter, Data Scientist, Children's, Hospital LA Sandy Aronson, Executive Director of IT, Partners HealthCare Personalized Medicine

#### DAY 2 | TUESDAY, DECEMBER 4

Track Chair: Sandy Aronson, Executive Director of IT, Partners HealthCare Personalized Medicine

1:15 Al in Healthcare: Applications, Maturity and Outlook Shriram Ramanathan, PhD, Sr. Analyst, Lux Research

#### 1:45 Integrating Algorithmic Generated Techniques into Clinical Care and Decision Making

Sandy Aronson, ALM, MA, Executive Director of IT, Partners HealthCare Personalized Medicine

#### 2:15 Al for Infection Detection and Prevention

Erica S. Shenoy, MD, PhD, Associate Chief, Infection Control Unit, Massachusetts General Hospital; Assistant Professor of Medicine, Harvard Medical School

#### 2:45 MoneyBall Medicine: Thriving in the New Data-Driven **Healthcare Market**

Harry Glorikian, Healthcare Consultant

#### 3:00 Refreshment Break in the Exhibit Hall with Poster Viewing

3:45 Examining the Use of AI for Imaging in Clinical Care Aalpen A. Patel, MD, Chair, Department of Radiology, Geisinger Health

#### 4:05 Developing and Translating AI-Enabled Applications for Healthcare

Katherine Andriole, PhD, Director of Research Strategy and Operations, MGH & BWH Center for Clinical Data Science; Associate Professor of Radiology, Harvard Medical School

#### 4:25 PANEL: How Are Organizations Leveraging AI to Drive Operational Intelligence?

Moderator: Adam Landman, MD, Vice President and CIO, Brigham and Women's Hospital

Panelists: Karim Botros, Chief Strategy and Innovation Officer, The MetroHealth System

- Sandy Aronson, Executive Director of IT, Partners HealthCare Personalized Medicine
- Mary Margaret Jacobs, Director, Capacity Management, The Johns Hopkins Hospital

#### DAY 3 | WEDNESDAY, DECEMBER 5

Track Chair: David Ledbetter, Data Scientist, Children's Hospital Los Angeles

#### 2:00 Meshing AI and Human Cognition: Managing Risks of **Ethics and Bias**

John Mattison, MD, CMIO, Kaiser Permanente

#### 2:25 Computerized, Physician Order Entry-Driven Clinical **Decision Support for Laboratory Tests**

Milenko Tanasijevic, MD, Vice Chair, Clinical Pathology and Quality, Brigham and Women's Hospital and Dana Farber Cancer Institute, Associate Professor of Pathology, Harvard Medical School

#### 2:45 Avoiding Hype and False Conclusions about AI in Medicine: Key Concepts and Examples

Mike Zalis, MD, Associate Professor of Radiology, Harvard Medical

#### 3:05 Refreshment Break in the Exhibit Hall - Last Chance for Viewing

#### 3:40 PANEL: Al and

#### Advanced Algorithms in Healthcare from the Investors Perspective

Moderator: Navid Alipour, Co-Founder and Managing Partner, Analytics Ventures

Panelists: Josh Kellar, PhD, Partner and Managing Director, Boston Consulting Group (BCG)

- Mike Spadafore, Managing Director, Sandbox Industries
- Jonathan Gordon, Director, NYP Ventures at New York-Presbyterian
- Bethany Hills, Chair, FDA Practice, Mintz

#### 4:30 Improving the Patient Experience Through AI Applications: Use Cases in Radiologic Care

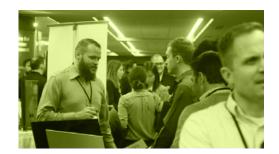
Monica Wood, MD, Clinical Fellow in Radiology, Massachusetts General Hospital

#### 4:40 Healthcare Executive to be Announced



### Sponsor & Exhibitor Opportunities

#### INTEGRATED MARKETING SPONSORSHIP PACKAGES



Al World Conference & Expo offers a variety of proven and cost-effective integrated marketing sponsorship packages to help meet your branding, go-to-market and lead generation goals. A presence at Al World is a clear investment in the success of your business and allows you access to:

#### Branding:

Brand and position your company as a market leader

#### Thought Leadership:

Receive a strategic platform to communicate your vision of Al

#### Sponsorship & Exhibit Space:

Participate as an exhibitor and showcase your products, services and solutions

#### Lead Generation:

Meet and connect with thousands of pre-qualified buyers and key influencers, and receive top quality sales leads

#### **Private Meetings:**

Set up private meetings and develop strategic relationships and partnerships with existing and new business partners

#### **Public Relations:**

Meet with press and analysts from around the world

#### **Education:**

Educate your customers, prospective clients, partners and company members about your company's products, services and solutions

#### Networking:

Network with peers, industry leaders and prospective new clients and partners

#### Competitive Differentiation:

Extend your visibility and competitive differentiation by participating as a sponsor

#### Attendee List Access:

Receive valuable conference and expo attendee list



### Networking Opportunities

Al World 2018 features 10+ hours of dedicated high-impact networking time with conference and expo attendees, including:

- Al World Global Expo (December 4-5)
- · Al Startup Pavilion
- Two (2) Al Strategy & Technology Solutions Theaters open to all conference and expo attendees
- Special Networking Events including Networking Continental Breakfasts, Conference Luncheons, Evening Networking Receptions and more!



## Coming to Boston

# Al in Healthcare

DECEMBER 4-5, 2018 | BOSTON, MA

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Artificial intelligence in the healthcare industry is predicted to save \$150 billion annually for the US. As such, Al is being rapidly deployed in many areas of the healthcare landscape. This event will primarily focus on the Providers, attracting CIOs, CTOs, IT and Informatics Experts along with senior Physicians and Clinicians from the leading US hospitals who will share their experiences of using Al in the clinical care and hospital operations environment.

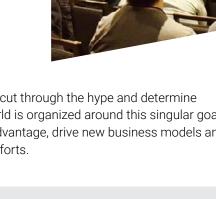


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Al World Conference and Expo is focused on the state of the practice of artificial intelligence in the enterprise. The 3-day conference and expo are designed for business and technology executives who want to learn about innovative implementations of Al in the enterprise.

Enterprise organizations face conflicting priorities. Where do they turn to cut through the hype and determine how to prioritize AI strategies and technologies for their business? AI World is organized around this singular goal, enabling business leaders to learn how to use AI to build a competitive advantage, drive new business models and opportunities, reduce operational costs and accelerate their innovation efforts.



#### **HOTEL & TRAVEL**

# Experience Boston

As one of the most historic cities in the United States, Boston offers unforgettable adventure with exceptional food, sporting events, music venues, and beautiful parks. Beyond its deep history, Boston is home to numerous universities and colleges which continue to attract scholars, scientists, philosophers and writers who shape its evolving culture. Attend Al World Conference & Expo, located on Boston's historic waterfront, to experience this modern, innovative city and its deep roots. With so many fascinating sights and points of interest, the toughest choice will be which one to experience first!



# CONFERENCE VENUE: Seaport World Trade Center 200 Seaport Boulevard

200 Seaport Boulevard Boston, MA 02210

#### **HOST HOTEL:**

Seaport Hotel One Seaport Lane Boston, MA 02210 1-877-SEAPORT (1-877-732-7678)

**Discounted Room Rate:** \$239, not including tax or fees

**Discounted Room Rate Cut-off Date:** November 5, 2018

For more information, visit: AlWorld.com/venue