NABE TECH ECONOMICS CONFERENCE
TEC2017

Economics in the Age of Algorithms, Experiments, and A.I.

November 15–16, 2017

Seattle Marriott Waterfront

NABE.com/TEC2017

#TEC2017

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Ronnie K. Irani
Center for Data Analytics
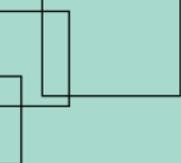MEINDERS SCHOOL OF BUSINESS
OKLAHOMA CITY UNIVERSITY

THOMSON REUTERS

CBE
CERTIFIED BUSINESS ECONOMIST

Individuals who have earned the Certified Business Economist® (CBE) Certification are required to earn 30 continuing education credit hours every two years. The NABE Tech Economics Conference qualifies for 14 continuing education credit hours. Please track your hours separately to be reported to NABE at the time of your renewal. CBEs are encouraged to track their credit hours on the CBE Continuing Education Form, which can be downloaded from www.NABE.com/CBE.

**Our thanks to the NABE Tech Economics Conference
planning committee for organizing the conference:**

Bill Anderson, University of Washington

Susan Athey, Stanford University

Greg Duncan, Amazon

Carolyn Evans, Intel

Peter Evans, KPMG

Martin Fleming, IBM

Duncan Gilchrist, UBER

Christopher Hooton, Internet Association

Mike Horrigan, CBE, BLS

Stan Humphries, Zillow

Brian Johnston, IBM

Sam Khater, CoreLogic

Mike Luca, Harvard University

Stuart Mackintosh, CBE, Group of Thirty

Stephan McBride, Netflix

Skylar Olsen, Zillow

Lisa Osofsky, IBM
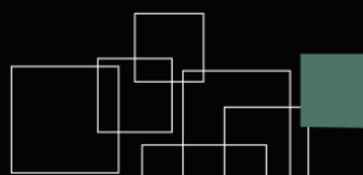
Nela Richardson, Redfin

Ken Sanford, Dataiku

Tara Sinclair, Indeed and The George Washington University

Paul Thomas, CBE, Economic Stories, LLC

Hal Varian, Google

Mine Yücel, CBE, NABE President; Federal Reserve Bank of Dallas

A special thanks to the Seattle Economics Council, the Seattle chapter of NABE.

8:00am - 5:00pm

Virtual Career Fair: Interview room available to employers

Seaport

Participating employers: Amazon, ECONorthwest, Facebook, Google, Houzz, IBM, Intel, Keystone, Netflix, Nuna, QuantCo, Redfin, Uber, and Zillow

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8:30am - 10:15am

Registration / Check-in, exhibit space open

Grand Foyer

Exhibitors: Amazon, Haver Analytics, IBM, Keystone Strategy, and Seattle Economics Council

General Sessions

9:15am - 10:15am

Poster Session Presentations

Grand Pacific D-G | Sponsored by *The NABE Foundation*

Poster presenters will give brief talks on their research during this session. Presenters will be available for Q&A in the foyer during Poster Sessions (12:35pm and 3:20pm)

2D-Spherical Visualization of Large Scale Connected Networks
Solomon Sia, Keystone

A Matrix Factorization Approach to Predicting Successful Commercial Real Estate Development Partnerships
Paul Fomenky, CBRE

AI Technology and the Future of Employment
Qing Chen, Kangning Gao, and Weiwei Li, The George Washington University

Deep Learning and Finance: Here We Go Again
Timothy H. Savage, CBRE Econometric Advisors; Huy Vo, CUNY and NYU

Director Nominations: Evidence from Machine Learning
Lea Stern, University of Washington; Isil Erel, Ohio State University; Chenhao Tan, University of Colorado Boulder; and Michael Weisbach, The Ohio State University and NBER

Driver Response to Variable Message Signs: Experiment, Analysis, and Predictive Modeling
Si-Yuan Kong, University of California, Irvine

Effect of Sponsored Listings on Online Marketplaces: The Role of Information Asymmetry
Vibhanshu Abhishek and Siddhartha Sharma, Carnegie Mellon University

Learning with Opponent-Learning Awareness
Yuhua (Richard) Chen, OpenAI; Pieter Abbeel, University of California, Berkeley; Maruan Al-Shedivat, Carnegie Mellon University; Jakob N. Foerster, Oxford University; Igor Mordatch, OpenAI; and Shimon Whiteson, Oxford University

Understanding the Effect of Incentivized Advertising along the Conversion Funnel
Khai Xiang Chiong, Richard Chen and Sha Yang, University of Texas at Dallas

Using Machine Learning to Harvest Macro Insight from Company-Level Research
Kartik Chhapia, Cait Dourney, and Irina Tytell, Fidelity Investments

10:15am - 10:45am

The Psychology of Inducing Honesty on the Internet

Grand Pacific D-G

Max Bazerman, Professor of Business Administration, Harvard Business School

Introduction: **Nela Richardson*,** Chief Economist, Redfin

10:45am - 11:35am

Outlook for Economics Careers in Tech

Grand Pacific D-G

Pat Bajari, Chief Economist & Vice President, Amazon

Carolyn Evans*, Senior Data Scientist, Intel

Stan Humphries, Chief Analytics Officer & Chief Economist, Zillow Group

Moderator: **Michael Luca**, Lee J. Styslinger III Associate Professor of Business Administration, Harvard Business School

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11:35am - 12:35pm

LUNCHEON: Marketplaces and Market Design—Matching Markets and Kidney Exchange

Grand Pacific D-G

Alvin Roth, Craig and Susan McCaw Professor of Economics, Stanford University

Introduction: **Mine Yücel***, **CBE**, 2017-18 NABE President, Senior Vice President and Research Director, Federal Reserve Bank of Dallas

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12:35pm - 1:05pm

Poster Session / Networking Break

Grand Foyer

Concurrent Sessions

1:05pm - 1:45pm

TRACK I: Introduction to Deep Learning

Grand Pacific A-C

Sanjiv Das, William and Janice Terry Professor of Finance and Business Analytics, Leavey School of Business - Santa Clara University
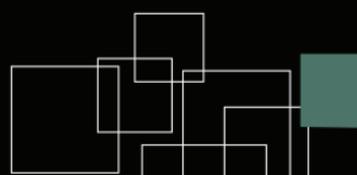
Introduction: **Carolyn Evans***, Senior Data Scientist, Intel

TRACK II: Econometrics, ML, and All That Stuff

Grand Pacific D-G

Greg Duncan, Chief Economist & Chief Statistician, Amazon

Introduction: **Michael Horrigan**, **CBE**, Associate Commissioner, Office of Employment and Unemployment Statistics, U.S. Bureau of Labor Statistics

1:50pm - 2:30pm

TRACK I: Other Approaches to Causal Inference
Grand Pacific A-C
Duncan Gilchrist, Data Science Manager, Uber
Randall Lewis, Economic Research Scientist, Netflix

TRACK II: Tools for Working with Big Data/Machine Learning
Grand Pacific D-G
Evan Bloom, Senior Data Scientist, Netflix
Nick Stevens, Principal Product Manager, Zillow
David Stiff, Principal Economist, CoreLogic
Moderator: **Sam Khater**, Deputy Chief Economist, CoreLogic

2:35pm - 3:20pm

TRACK 1: Experiments at Tech Companies
Grand Pacific D-G
Mike Bailey, Economist, Facebook
Tom Cunningham, Data Scientist, Facebook
Moderator: **Tom Blake**, Manager & Economist, A9.com

TRACK II: Evaluating the Quality of New Data Sources
Grand Pacific A-C
Issi Romem, Chief Economist, BuildZoom
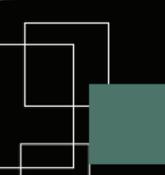**Tara Sinclair**, Senior Fellow, Indeed; Professor, The George Washington University
Moderator: **Jacob Dearmon**, Professor of Economics, Director of Center for Data Analytics, Oklahoma City University

3:20pm - 3:50pm
Poster Session / Networking Break
Grand Foyer

General Sessions

3:50pm - 4:40pm

Man vs. Machine: Integrating the Tools of Economics & Data
Science in the Workplace

Grand Pacific D-G

Phil Leslie, Chief Digital Economist & Vice President, Amazon

Randall Lewis, Economic Research Scientist, Netflix

Moderator: **Nela Richardson***, Chief Economist, Redfin

4:40pm - 5:20pm

The Master Algorithm: How Machine Learning Will Remake
Our World

Grand Pacific D-G

Pedro Domingos, Professor of Computer Science and Engineering,
University of Washington

Introduction: **Ellen Hughes-Cromwick**[+], **CBE**, Interim Associate Director and
Senior Economist, University of Michigan Energy Institute

5:20pm - 6:15pm

Is AI the Future of Business Economics?

Grand Pacific D-G

Jure Leskovec, Associate Professor of Computer Science, Stanford University

Hal Varian, Chief Economist, Google

Moderator: **Martin Fleming**[#], VP, Chief Economist, & Chief Analytics
Officer, IBM Corp.

6:30pm - 7:45pm

Reception at the World Trade Center Seattle
Hosted by Zillow

2200 Alaskan Way, 4th floor
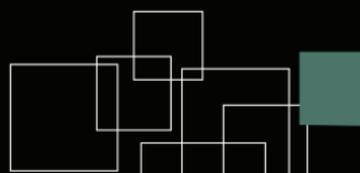*(30 steps north of the Seattle Marriott Waterfront)*

8:00pm - 9:15pm

Small Group Dinners

Area restaurants
Preregistration required. Groups will meet at the conclusion of the
reception at the World Trade Center Seattle.

7:45am - 8:15am
Continental Breakfast
Grand Foyer

General Sessions

8:15am - 9:15am
Applications of Big Data: Impact of Changes to the
Minimum Wage
Grand Pacific D-G
Jacob Vigdor, Professor, University of Washington
William L. Wascher, Deputy Director, Division of Research and Statistics,
Federal Reserve Board of Governors
Moderator: **Paul Thomas#**, **CBE**, Co-Founder & Principal, Economic Stories, LLC

9:15am - 10:00am
Machine Learning for Analyzing Complex Time Series
Grand Pacific D-G
Emily B. Fox, Amazon Professor of Machine Learning, University of Washington
Introduction: **Emily Glassberg Sands,** Director of Data Science, Coursera

10:00am - 10:30am
Networking / Coffee Break
Grand Foyer | Sponsored by Haver Analytics

Concurrent Sessions

10:30am - 11:10am

TRACK I: Algorithms at
Business: Prediction
Problems, New Results, and
Applications/Findings
Grand Pacific D-G
Guido Imbens, Professor of
Economics, Graduate School of
Business, Stanford University
Jasjeet Thind, VP of Data Science
and Engineering, Zillow
Moderator: **Michael Luca**, Lee J.
Styslinger III Associate Professor of
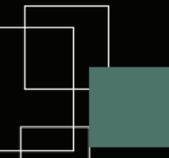Business Administration, Harvard
Business School

TRACK II: Measuring the
Macroeconomy with Big Data
Grand Pacific A-C
Peter Lenz, Senior Geospatial
Analyst, Dstillery
Qing Wu, Senior Economist, Google
Moderator: **Andrew Chamberlain**,
Chief Economist, Glassdoor

11:15am - 12:00pm

TRACK I: Economists in Marketplaces: Pricing, Matching, Strategy, and Experimentation
Grand Pacific D-G
Emily Glassberg Sands, Director of Data Science, Coursera
Chris Nosko, Senior Manager, Economics, Amazon
Kane Sweeney, Pricing Science, Uber
Moderator: **Duncan Gilchrist**, Data Science Manager, Uber

TRACK II: Big Data and the Future of Government Stats
Grand Pacific A-C
Guy Berger, Economist, LinkedIn
Ron Jarmin, Associate Director for Economic Programs, U.S. Census Bureau
Brian Moyer, Director, U.S. Bureau of Economic Analysis
Moderator: **Michael Horrigan**[#], **CBE**, Associate Commissioner, Office of Employment and Unemployment Statistics, U.S. Bureau of Labor Statistics

12:05pm - 12:35pm

TRACK I: Talks on Experiments at Companies
Grand Pacific D-G
Sarah Moshary, Assistant Professor, University of Pennsylvania
Cuky Perez, Data Science Manager, Airbnb
Moderator: **Duncan Gilchrist**, Data Science Manager, Uber

TRACK II: Outlook for Crowdsourced Data
Grand Pacific A-C
Jon Loyens, Co-Founder and Chief Product Officer, data.world
Moderator: **Tara Sinclair**, Senior Fellow, Indeed; Professor, The George Washington University

12:35pm - 1:45pm

LUNCHEON: Addressing the Bogeymen of AI—Jobs, Safety, Privacy, and More
Grand Pacific D-G
Oren Etzioni, CEO, Allen Institute for Artificial Intelligence
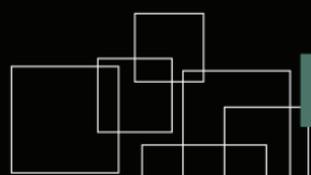Moderator: **Stan Humphries**, Chief Analytics Officer & Chief Economist, Zillow Group

1:45pm - 2:15pm

Networking / Coffee Break
Grand Foyer

Concurrent Sessions

2:15pm - 2:55pm

TRACK I: Mitigating Risks in Analytics
Grand Pacific D-G
Martin Fleming#, VP, Chief Economist, and Chief Analytics Officer, IBM Corp.
Svenja Gudell, Chief Economist, Zillow
Moderator: **Timothy H. Savage,** Senior Managing Economist, CBRE

TRACK II: Applications in Text Analytics
Grand Pacific A-C
Joe Sutherland, Director of Quantitative Analytics, Prattle
Dan Wilson, Research Advisor-Microeconomic Research, Federal Reserve Bank of San Francisco
Moderator: **Jed Kolko**, Chief Economist, Indeed

3:00pm - 3:30pm

TRACK I: Behavioral Economics and Choice Structure
Grand Pacific D-G
Michael Luca, Lee J. Styslinger III Associate Professor of Business Administration, Harvard Business School

TRACK II: Tools and Tips for Data Visualization
Grand Pacific A-C
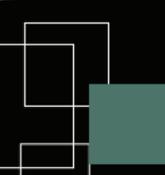**Kim Rees**, Head of Data Visualization, Sr. Director, Design, Capital One
Introduction: **Auden Kaehler,** Consultant, WSP USA

3:30pm - 3:40pm
Coffee Break
Grand Foyer

General Sessions

3:40pm - 4:25pm
When to Call "BS" on Big Data
Grand Pacific D-G
Carl T. Bergstrom, Professor, University of Washington
Jevin D. West, Assistant Professor in the Information School, University of Washington
Moderator: **Bill Anderson**, Former Executive Director, MS-Computational Finance & Risk Management, University of Washington

4:25pm - 5:20pm
Policy and Big Data: City, National, and Global Perspectives
Grand Pacific D-G
Jonathan Hall, Chief Economist and Director of Public Policy, Uber
Christopher Hooton, Chief Economist, Internet Association
Martha Lawless, Chief, Services Division, Office of Industries, U.S. International Trade Commission
Moderator: **Ellen Hughes-Cromwick**+, **CBE**, Interim Associate Director and Senior Economist, University of Michigan Energy Institute

5:20pm - 6:30pm
Reception at Seattle Marriott Waterfront
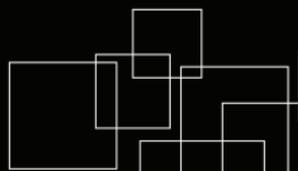Hosted by Amazon
Grand Pacific A-C
Featuring remarks from **Dan Jedda,** Vice President, Finance, Amazon

* Current NABE Director
 # Former NABE Director
+ Former NABE President

UPCOMING NABE EVENTS

**34th Annual NABE Economic
Policy Conference**
February 25-27, 2018
Capital Hilton
Washington, DC

**8th Annual NABE Transfer
Pricing Symposium**
July 17-19, 2018
Four Seasons Hotel
Washington, DC

60th NABE Annual Meeting
September 29 - October 2, 2018
Westin Copley Place
Boston, MA

WiFi Network:
Marriott Conference
Password:
NABE2017

UPCOMING CBE COURSES

≋CBE

**Machine Learning and Data Science
for Economists**
Registration Open
February 28 - March 1, 2018
Capital Hilton Hotel
Washington, DC

**The NABE Foundation
Economic Measurement Seminar**
July 16-17, 2018
Four Seasons Hotel
Washington, DC

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