



Intensive Data and Analytics Summer Workshop Descriptions

June 4, 2018		Description	
8:00 am-8:15 am	General Session	Welcome-Tracey Sutherland, American Accounting Association (AAA)	TED-like talks and group activities utilizing data and analytics.
8:15 am-8:30 am		Great Expectations-Susan Crosson, AAA	
8:30 am-8:45 am		The Data Driven Accountant-Daniel Smith, Syntelli Solutions, Inc.	
8:45 am-9:00 am		The Assurance Office of the Future-Mark Mayberry, BDO	
9:00 am-9:15 am		The Fintech Marketplace-Joseph French, Intrinio	
9:15 am-9:40 am		Q&A, Great Expectations Activity and Debrief-Susan Crosson, AAA	
9:40 am-10:10 am	Break	Continental Main Foyer	
10:10 am-10:25 am	General Session	Integrating Data and Analytics into the Accounting Curriculum-Guido Geerts, University of Delaware	
10:25 am-10:35 am		North Carolina State University-Eileen Taylor	
10:35 am-10:45 am		University of Illinois/Coursera-Vic Anand	
10:45 am-10:55 am		KPMG's MA in Data Analytics-James Powell	
10:55 am-11:05 am		University of Georgia-Margaret Christ	
11:05 am-11:15 am		Florida State University-Allen Blay	
11:15 am-11:25 am		University of Waterloo-Theo Stratopoulos	
11:25 am-11:35 am		Northern Illinois University-Ann Dzurarin	
11:35 am-12:00 pm		Q&A and Debrief-Susan Crosson	
12:00 pm-1:00 pm	Lunch	Continental Main Foyer	
1:00 pm-2:40 pm	Concurrent Sessions (select one)	Approaches to Introduce D&A Basics: 1.01 Critical Thinking/Analytic Cycle Approach-Ann Dzurarin, Northern Illinois University	Develop an analytics mindset by using critical thinking throughout the analytic cycle to ask and answer data inspired questions.

		2.01 Data Analytics with R Approach-Theo Stratopoulos, University of Waterloo	Given the growing interest in analytics and technology, accounting students need to convince recruiters that they can handle entry level analytics jobs. To help students build such a foundational knowledge, we propose a series of courses that build and reinforce (scaffolding approach) students' ability to leverage R in the context of accounting.
2:40 pm-3:10 pm	Break	Continental Main Foyer	
3:10 pm-4:50 pm	Concurrent Sessions (select one)	Approaches to Introduce D&A Basics: 1.02 Data Process Chain Approach-Guido Geerts, University of Delaware	Teaching "Big Data" awareness to accounting students using a historical perspective about the massive amounts of data that have become available and the Big Data technologies and software that harness its power. In addition, students will learn how Big Data technologies can help accountants with extracting, profiling, cleaning, structuring, and analyzing data. Some specific accounting applications will be discussed.
		2.02 Open Source Courses and Resources Approach-Susan Crosson, AAA	How can schools with no data and analytics resources or expertise enable students to be competitive? Go to the Internet!
5:00 pm-6:00 pm	Dinner	On your own or participate in meet-up groups	
6:00 pm-9:00 pm (Refreshment Break 7:40-8:00)	Hands-on Workshops (select one)	Tableau Basics-Brian Russell, Tableau	Learn data visualization basics using platform agnostic Tableau to analyze data and build dashboards. Become familiar with the many free benefits Tableau offers academics, including learning resources and data sources.
		Microsoft's Power BI Basics (PC based)-Guido Geerts, University of Delaware	Most big data projects go through a prototypical sequence of steps: discovering data, organizing data (extracting, profiling, transforming), enhancing data (information modeling), and analyzing data. Each of the different steps requires a different set of skills and tools. This workshop first discusses how Power BI supports the different steps followed by an in-depth discussion of how to build powerful, interactive, dashboards with Power BI (analyzing data). This is a hands-on workshop! You will learn the core principles of designing dashboards by working on a number of exercises. We will start from scratch, no previous knowledge regarding designing dashboards or analytics is required and the materials taught are relevant to all accounting disciplines. After taking this workshop you

			should be able to teach and use dashboards (and analytics) in your classes.
		R Basics-Theo Stratopoulos, University of Waterloo	Introduce statistics concepts (e.g., descriptive statistics, hypothesis testing, simple regression) using R to analyze data/applications in management accounting, financial accounting, and finance.

Tuesday, June 5 Program:

Tracks (Come with software pre-loaded on your computer):

1. [Data Visualization](#);
2. [Excel/Access/SQL](#);
3. [Popular Tools: Power BI, SAP](#);
4. Coding: R and Python;
5. [Course and Curricula](#)

Concurrent Session Format:

Session title (Session level: Basic, Intermediate, or Advanced; Pre-loaded software required)-Presenter

June 5, 2018			
7:00 am-8:00 am	Continental Breakfast	Continental Main Foyer Peer reviewed Posters on display throughout the day	
8:00 am-9:40 am	Concurrent Sessions (select one)	1.03 Data Analytics and Visualization using Tableau for Accounting (Basic; Tableau, Data)-Kevin Pan, Samford University and Alan Blankley, Samford University	This session aims to equip faculty to teach their undergraduate business students data analytics and visualization. Specific learning objectives include data merging, data cleaning, analytical thinking, handling large amounts of real life data, descriptive statistics, and generating relevant tables and charts using accounting relevant datasets.
		2.03 How to Prepare Data for Analysis: Cleaning and Transforming (Basic; Excel, Data)-Myles Stern, Wayne State University	Realistic examples of data ETL (extraction, transformation, and loading) will be presented. Participants will learn techniques that are useful for data preparation and can be adapted for use in auditing, financial, managerial, and tax courses. Excel skills covered will include converting text to columns, nested IF statements, functions to manipulate character data, working with large data sets, sorting data, and Vlookup.

		<p>3.03 Microsoft Power Pivot and Power BI Data Analytics: from Big Data to a Dashboard (Advanced; Excel, Power Pivot, Data, Power BI)-Paul Goldwater, University of Central Florida and Paul Juras, Babson College</p>	<p>Participants will work with a fictional payroll data set for the Disney Company that has 65,000 employees and 4 million payroll records. Participants will walk through a series of assignments that will run from the fundamentals of data extract, transform, and load data to the use of intermediate and advanced data analytics. The final assignment looks at the creation and use of a dashboard to “slice and dice” the data to support decision-making.</p>
		<p>Two Extensions of R (Shared session, 50:50): 4.03 Creating Synthetic Data Files Via R Language---A Tutorial With Hands-On Applications (Intermediate; R Studio, R Script, Data)-Thomas E. McKee, Medical University of South Carolina; and</p>	<p>This master class session will include detailed explanations along with hands-on step-by-step R coverage of how to create synthetic data files in R. Steps include: Download a real empirical data set from the web. Compute basic statistics on the data set to appropriately understand its statistical properties. Create a synthetic data set that statistically matches the real data set. Test the synthetic data set to verify that it conforms to the real data set. And, expand the synthetic data set to 10,000 times (or more!) the size of the original data set.</p>
		<p>4.03 Teaching Blockchain Concepts and How Blockchain Works with R-(Intermediate; R Studio)Theo Stratopoulos, University of Waterloo</p>	<p>Understand blockchain technology and how it works. We use a combination of definitions and narrative story-telling to introduce blockchain concepts. In parallel we use R to develop some of the building blocks (e.g., hash, proof-of-work, validation) and demonstrate how a blockchain works. To help see beyond the current hype and develop critical thinking skills the session will close by asking such questions as: Do you need a blockchain? What is the expected adoption time frame for blockchain? What are the risks associated with implementation of blockchain adoption at its current stage?</p>
		<p>5.03 Core Technical Concepts and Competencies for Graduates (Intermediate; MySQL, Python, Git)-Daniel Smith, Syntelli Solutions, Inc.</p>	<p>This session will provide a summary of new competencies required of accounting majors as data analysis, access, manipulation, and governance become foundational knowledge required at every level of the modern business organization.</p>
9:40 am-10:10 am	Break	Continental Main Foyer	

10:10 am-11:50 am	Concurrent Sessions (select one)	<p>Visualizing Analytics: Resources and Applications (Shared session, 50:50): 1.04 HUB of Analytics Education Teaching Resources and Data sets (Basic, http://www.hubae.org)- Charlie Bame-Aldred, HUB of Analytics Education; and</p>	<p>Open Educational Resources (OER) are provided to faculty in Higher Education by the HUB. These materials were developed by faculty from the D’Amore-McKim School of Business at Northeastern University in Boston, Massachusetts to meet a need in Higher Education: free materials that assist faculty when teaching Big Data techniques in their classrooms. They include a large transactional dataset with supporting information and cases and exercises with suggested solutions and teaching notes for Auditing (ACL or IDEA based activities) and Management Accounting (Tableau based activities). The materials are owned by the Northeastern University and/or the Authors.</p>
		<p>1.04 Contextualizing the Real-World Data Sets: Using Global Terrorism Datasets for Visual Analytics in an Accountancy Program (Basic; Tableau)-Arif Perdana, Singapore Institute of Technology</p>	<p>When delivering information with visualization, we should be able to bring the story visually and contextually. One of the challenges incorporating data analytics in teaching is obtaining the real-world datasets. Further, we should be able to contextualize the dataset for a particular module. Students are therefore able to comprehend what they have to make sense of the data and make a compelling story and explanation. We will use a real-world data set about global terrorism activities provided by one of the major universities in the United States and contextualize the story to be relevant for teaching Enterprise Accounting Application module. Overall, this session is primarily aimed to share our experience on teaching data visualization at a foundational module at the accountancy program, particularly to enhance students’ skills in using a data visualization tool to conduct data analysis.</p>
		<p>2.04 SQL: An Introduction to Writing Database Queries (Intermediate; Access)-R. Drew Sellers, Kent State University</p>	<p>Test drive a self-contained module that can be inserted in a course to provide students with basic database query writing skills. Help your students develop basic query writing skills. We will work with a simple MS Access database. We will write queries together. You will leave with a database, accompanying slides, in-class exercises, homework assignments and the confidence to help students master this valuable skill.</p>

		<p>3.04 Teaching Big Data Applications with REA and Power BI (Intermediate; Access, Power BI)-Guido Geerts, University of Delaware</p>	<p>A hands-on case that consists of: Learning more about REA's core principles using a manufacturing company—Ventura Vehicles (David and McCarthy)—which integrates the acquisition, payroll, conversion, and revenue cycles. The case has a data set that is stored in an Access database. Learning how to transfer the data from the database to an analytical database (using Microsoft Power BI) and learning how REA helps structure STAR schemas (facts and dimension tables). Learning how to assess whether a data set is compliant with REA logic (e.g. are there resources without an inflow) and to analyze REA irregularities (e.g. what is the rational for transactions not having agents). Learning how REA guides information modeling—calculating the information needed for analysis. REA provides stereotypical patterns for developing information models: e.g. flow imbalances (quantity on hand); exchange imbalances (claims and liabilities); performance indicators by agent and learning how to apply such structural (REA) knowledge to specific accounting examples. And, finally, learning to develop a number of REA-driven dashboards in Power BI.</p>
		<p>4.04 Python Foundations for Analytics (Basic; Python 3.6.4)-Esperanza Huerta, San Jose State University; Jian Zhang, San Jose State University; and Scott Jensen, San Jose State University</p>	<p>Provides instructional materials and short hands-on activities to introduce students with no programming background to Python. The activities are designed to learn about data types, variables, and flows of execution in the context of accounting applications. It provides the Python foundations required before students can use it for data analytics. This class is geared towards instructors who will teach novice students.</p>
		<p>5.04 Arline-The Artificially Intelligent Accounting TA: Using IBM Watson to Facilitate Online Classes (Basic, IBM Watson)-Chris Edmonds, University of Alabama-Birmingham</p>	<p>An overview of Watson IBM AI technology and demo the teaching assistant created from it that can answer student questions immediately and provide personalized feedback by querying the student's gradebook. The presenter will also share student usage data, discuss implementation challenges and facilitate a discussion on the use of this technology in accounting education.</p>
12:00 pm-1:00 pm	Lunch	Continental Main Foyer	

1:00 pm-2:40 pm	Concurrent Sessions (select one)	Data Visualization Poster Roundtables: 1.05 "Dear Data" - A Small Project to Explore Data Visualization (Basic; None)-Karen Schuele, John Carroll University;	This project is an effective way for students who have not yet been introduced to the concepts of effective data visualization to come to many of the concepts on their own and recognize that the overarching goal of data visualization is to tell a story.
		1.05 Dashboard Makeover Based on Storytelling with Data (Basic; Excel)-Nadia Schwartz, Augustana College; and	The project involves solving a real business world case using data analytics and creating dashboards for the presentation to the client. Then after reading the research done by Cole Nussbaumer Knaflic on storytelling with data, students revise their dashboards to incorporate their new learning as well as to reflect on the changes made in their projects.
		1.05 Helping Students Visualize Their Competitive Advantage: Tableau Certification (Basic; Tableau website)-Thomas Z. Webb, University of Mississippi	A discussion of how Tableau is introduced into Accounting Information Systems and Auditing and the certifications offered by Tableau for students to differentiate themselves while on the job market and during their internships.
		2.05 Detecting Dirty Data using SQL (Intermediate; Access, SQL, Insurance Data-Participant.accdb)-Daniel Street, University of Alabama	After conducting the 8-step data quality assessment, participants will develop SQL exception reports in Microsoft Access to detect suspect ("dirty") data. Knowledge of suspect data patterns can then be used for accounting, auditing, operational analytics, or information systems improvement efforts prior to developing analytics.
		3.05 Teaching Machine Learning with SAP Predictive Analytics to Accounting Students Doesn't Have to be Scary! (Basic; SAP Predictive Analytics trial version)-Nancy Jones, San Diego State University	Many of today's analytical tools allow us to benefit from the genius behind the scenes without actually having to program the algorithms ourselves. In this session you will be introduced to an accounting analysis using both unsupervised and supervised models (machine learning) to help students learn to interpret the results of the advanced analytical models. Once you complete this session you should be able to introduce some of these advanced mathematical models into your accounting curriculum "painlessly" to help your students develop their critical thinking skills.
		4.05 Data Wrangling in Spark with Python (Intermediate; Python, Spark, Jupyter Notebooks)-Scott Jensen, San Jose State University and Esperanza Huerta, San Jose State University	The use of Python and Spark to support the data transformations and profiling required to clean and understand data before it can be analyzed. Pre-defined Jupyter notebooks will be provided for short, hands-on activities to run data transformations and queries. A class

			geared towards those that have some foundational programming skills and who will teach students who possess a basic programming background.
		Graduate Curricula (Shared session, 50:50): 5.05 MSc in International Accounting and Analytics (Basic; None)-Sharon Cotter, National University of Ireland-Galway; and	The National University of Ireland Galway's postgraduate programme (MSc in International Accounting & Analytics) attracts three different cohorts of students: (1) EU graduate business students who are seeking accreditation with professional accounting bodies, (2) Non-EU business graduate students who are seeking a Masters in a different country and accreditation with international professional accounting bodies, and (3) qualified accountants who wish to upskill in the area of big data and analytics. The objective of this session is to describe the challenges in designing a new postgraduate programme to meet the needs of both graduates and returners to education concurrently, the benefits of practitioner led modules and, to discuss opportunities for cross-institutional collaboration.
		5.05 MSA Concentration in Data and Analytics (Intermediate, None)-Necip Doganaksoy, Siena College	Based on the curriculum for the planned MSA Concentration in Data and Analytics at Siena College School of Business, the session emphasizes applications in managerial accounting, auditing and fraud detection to ground students in the key concepts of data exploration and analysis and introduce advanced technical concepts and data analytics software to MSA students.
2:40 pm-3:10 pm	Break	Continental Main Foyer	
3:10 pm-4:50 pm	Concurrent Sessions (select one)	1.06 EY Academic Resource Center: Case Offerings and Technology Tool Adaptions: Excel, Tableau, Access, R, Python (Basic; Excel, Tableau, Access, R, Python)-David Wood, Brigham Young University; Margaret Christ, University of Georgia; Vic Anand, University of Illinois; and Catherine Banks, EY	An overview of the EY Academic Resource Center analytics mindset competency framework with targeted discussion on developing the competency of students to apply appropriate data analytics techniques using a range of technology tools. Three EYARC cases (DuPont, P-Card and TechWear) will be discussed, including various technology adaptations for delivery that include Excel, Tableau, Access, R and Python.
		2.06 Integrating Big Data Projects into the Accounting Curriculum (Basic; None)-Nadia Schwartz, Augustana College and Guido Geerts, University of Delaware	Guidelines regarding the integration of big data projects in the accounting curriculum, based on the experience of two faculty members (who teach at different schools: a large state university and a small liberal arts college). Questions the session will answer: Where to find data for projects?

			Can “small” data be used to teach “big” data? How to manage student projects? Actual projects will be used for illustration purposes.
		3.06 Using SAP Predictive Analytics, R, and Descriptive Data Models to Explore and Evaluate Income Tax Data (Basic; SAP Predictive Analytics trial version, R)-Nancy Jones, San Diego State University	As with other accounting professionals, tax accountants are expected to be able to analyze and evaluate data for their clients. This activity uses SAP Predictive Analytics to clean and cluster actual IRS tax data as a first step in additional exploration and tax analysis.
		4.06 Accounting Data Analytics Using SAS and Python (Intermediate; SAS, Python, WRDS)-Ken Guo, California State University, Fullerton	This graduate-level course focuses the application of relational database tools for accounting data analysis and programming languages for basic textual analysis.
		Data Poster Roundtables: 5.06 Government Financial Information and the Truth in Accounting Curriculum (Basic; State Data Lab website)-William Bergman, Truth in Accounting; and	An introduction to a dedicated curriculum that demonstrates how Truth in Accounting’s State Data Lab website can be used as learning tool for accounting, finance, and public policy courses. The State Data Lab includes proprietary indicators of state and local governments’ fiscal health, along with more than 250 sources of demographic, economic, and financial information that help provide context for understanding government finance. Truth in Accounting’s mission is to educate and empower citizens with truthful, timely, and transparent government financial information.
		5.06 Generating Your Own Large Accounting Data sets (Intermediate; Excel, Random List File)-Ryan Teeter, University of Pittsburgh	Besides learning how to use Excel to generate large, random datasets that mimic real company transactions and master data, participants will learn how to introduce interesting data anomalies into their datasets to illustrate outliers, errors, and fraud in class labs, case studies, and to demonstrate specialized data analytics software and tools.
5:00 pm-6:00 pm	Dinner	On your own or participate in meet-up groups	
6:00 pm-9:00 pm (Refreshment Break 7:40-8:00)	Hands-on Workshops or Case Experience (select one)	Tableau Advanced-Brian Russell, Tableau	Learn more advanced data visualization techniques using platform agnostic Tableau to analyze data and build dashboards. Become familiar with the scope of Tableau’s offerings and benefits for academics, including learning resources and data sources.
		Microsoft’s Power BI Advanced (PC based) Guido Geerts, University of Delaware	The session takes a deeper look at Power BI and how its tools can be applied in different accounting areas (financial, managerial, auditing).

		Huskie Motor Car Case-Ann Dzurainin, Northern Illinois University	Experience the "Huskie Motor Corporation: Visualizing the Present and Predicting the Future," the winner of Best Case Award at MAS/IMA Case Conference.
--	--	---	---

Wednesday, June 6 and Thursday, June 7 Program:

Tracks: 1. Auditing, 2. Managerial, 3. Financial, 4. Tax or AIS (Sessions 11 & 12), 5. Curricula

June 6, 2018			
7:00 am-8:00 am	Continental Breakfast	Continental Main Foyer. Peer reviewed Posters on display throughout the day.	
8:00 am-9:40 am One 100-minute session in five concurrent rooms.	Concurrent Sessions (select one)	1.07 Designing Courses and Curricula: Auditing-Allen Blay, Florida State University	Convene with fellow Auditing faculty to discuss goal setting in assimilating data and analytics into courses.
		2.07 Designing Courses and Curricula: Managerial-Ann Dzurainin, Northern Illinois University	Convene with fellow Managerial faculty to discuss goal setting in assimilating data and analytics into courses.
		3.07 Designing Courses and Curricula: Financial-Alex Gabbin, James Madison University	Convene with fellow Financial faculty to discuss goal setting in assimilating data and analytics into courses.
		4.07 Designing Courses and Curricula: Tax-Nancy Nichols, James Madison University	Convene with fellow Tax faculty to discuss goal setting in assimilating data and analytics into courses.
		5.07 Designing Courses and Curricula: Program-Greg Sommers, Southern Methodist University	Convene with fellow Program leaders to discuss goal setting in assimilating data and analytics across the accounting curricula.
9:40 am-10:10 am	Break	Included	
10:10 am-11:50 am	Concurrent Sessions (select one)	1.08 EY Academic Resource Center (EYARC): EY Helix General Ledger Analyzer for Students (Basic; EYARC case, EY Helix General Ledger Analyzer)-Catherine Banks, EY and Margaret Christ, University of Georgia	An overview and hands-on application of cases studies provided by the EY Academic Resource Center that utilize EY Helix General Ledger Analyzer for students, a simplified audit analytics tool designed specifically for the classroom based on Helix, EY's global audit analytics platform.
		2.08 Airport Café Case: Forecasting under uncertainty using Excel (Intermediate; Excel 2016, Data)-Paul Juras, Babson College and Paul Goldwater, University of Central Florida	Participants will work with Excel and address three important aspects of management decision making: forecasting (time series analysis), cost estimation (linear regression), evaluation of uncertainty (Monte Carlo Simulation). After completing this case, the student will

			know forecasting using Exponential Smoothing, linear regression and evaluation of uncertainty using Monte Carlo Simulation. The results of the simulation will be presented with convincing and informative tabular and graphical visualizations.
		3.08 Introductory Financial Accounting ala Data Analytics (Basic, Excel, Edgar, Access)-Margarita Lenk, Colorado State University	This session will describe how to transform the first accounting course into a real-world data-based active learning course where the students' demand for (1) understanding accounting vocabulary, concepts, and financial statements (2) mastering the mechanics of the accounting process, and (3) gaining communication skills regarding the meaning of accounting information is derived from their excitement and enthusiasm for making decisions about what is happening in real world companies from their own financial statement analysis.
		4.08 Using Data Visualizations in Tax (Basic, Tableau)-Elizabeth Chorvat, University of Illinois and Nate Cragun, EY	A hands-on session on the use of data visualization techniques commonly used for tax engagements in public accounting. Applications for the classroom will include fixed asset review, global regulatory compliance, tax controversy status, and compliance analysis (overpayments, tax paid in loss entities, effective tax rate, research and development credit).
		Program Poster Roundtables: 5.08 Integration of Data Analytics and Emerging Technologies into the Accounting Curricula Findings (Intermediate; None)-Amelia A. Baldwin, University of South Alabama; and Qi Lui, University of Rhode Island; and	A description of the current state of accounting curricula with regard to inclusion of such emerging technologies as data analytics. Participants will gain knowledge and tools (including handouts about resources) to help them better integrate data analytics into the accounting curriculum in a variety of ways and courses. They will also be motivated to improve the accounting curriculum to reflect both practice and research with regard to data analytics and emerging technologies.
		5.08 Proposed Certificate in Data Analytics (Basic; None)-Eric Wen, University of Hawaii-West Oahu	A discussion around a cluster of five courses in a new Certificate of Data Analytics. The courses planned are: "Business Intelligence," a second course that provides students with Python experience in the data analytics workflow, a third course that introduces cloud computing,

			and a fourth and fifth courses covering an econometrics text and teaching students to use R.
12:00 pm-1:00 pm	Lunch	Included	
1:00 pm-2:40 pm	Concurrent Sessions (select one)	1.09 Audit Data Analytics Training and Open Source (Free) Teaching Material (Intermediate; R, R Studio, HUB of Analytics, SQL)-Theo Stratopoulos, University of Waterloo	Attendees will leverage R and large data sets from the HUB of Analytics Education to: Learn how to load and review the structure of large data sets provided by an audit client. Use SQL to clean, organize, and transform data. Generate descriptive statistics and detect outliers. Use ADA to obtain audit evidence on inventories and payroll.
		2.09 Machine Learning and Data Cleansing with Managerial Initiatives Data (Intermediate; Excel 2016, Data)-Sara Schmidt, Northern State University and Daniel Bahn, Corporate Image Group	This session will cleanse and organize a large data table containing 1.4 million data points of actual consumer data into usable information. The participants will use this data table to apply machine learning algorithm k-Nearest Neighbor (kNN) to predict and optimize the most likely outcomes of a future treatment (an incentive offer) on a group of consumers based on their demographic/psychographic variables. The session will include the "training" of the machine, the application of the treatment, and a comparison of predicted vs. actual outcomes on a subsequent data set.
		3.09 Introducing Data Analytics in Introductory Accounting Courses (Basic; Excel, data)-Wendy Tietz, Kent State University and Tracie Miller-Nobles, Austin Community College	Examples of teaching materials to introduce data analytics concepts in the accounting principles courses, including financial accounting and managerial accounting. An introduction to rudimentary data analytics to allow students to begin to build a base for the rest of the data analytics work throughout the rest of the accounting curricula. Learning outcome: Participants will be able to integrate some basic data analytics teaching materials into their introductory accounting courses.
		4.09 Deloitte Tax Cases (Basic; Tableau, Data)-Beth Mueller, Deloitte and Jonetta Love, Deloitte	Participate in cases developed by Deloitte that apply a data and analytics mindset to tax topics.
		5.09 Developing a Data Analytics Mindset: Beyond Software (Basic; None)-Gia Chevis, Baylor University	While data analytics skills certainly need the student to master the use of software tools, developing a tool-agnostic mindset does not require the student to physically manipulate a computer. In this session, we will review a

			framework for incorporating a data analytics mindset into any class, using an ethics class and a financial statement analysis class case as the main examples.
2:40 pm-3:10 pm	Break	Continental Main Foyer	
3:10 pm-4:50 pm	Concurrent Sessions (select one)	1.10 Integrating IDEA into an Auditing Course in an Effective and Efficient Manner (Basic; IDEA Educational v 10, IDEA Workbook and data files)- Allen Blay, Florida State University	An introduction to the IDEA software and a sample plan for introducing IDEA into an undergraduate auditing class using the free educational version of the IDEA software and IDEA workbook. Participants will have the opportunity to perform simple auditing procedures using the software. Faculty will leave the session with a sample "game plan" for specifically how and when to integrate assignments into an undergraduate audit class. Additional exercises that can be used in the classroom beyond the IDEA workbook will also be discussed.
		Managerial Poster Roundtables: 2.10 Data and Analytics Resources offered by the IMA (Basic; IMA Website)-Chris Aquino, IMA;	An introduction to the myriad of data and analytics related resources offered by IMA and how to use them in class.
		2.10 Data Visualization and CVP Analysis Activity (Basic; Tableau)-Yigit Bora Senyigit, King's College; and	Presentation of a hypothetical case study based on real data to engage undergraduate students in a data visualization learning activity on cost-volume-profit analysis in managerial accounting courses. Using Tableau, students gain an understanding of data analytics software and performing data visualization in support of business decision-making.
		2.10 Use of Regression in an Advanced Management Accounting Elective (Advanced; SPSS)-Pankaj Nagpal, Central Connecticut State University	A case study to teach regression as a multivariate analyses technique to graduate students. The software used is SPSS, although Stata, R or SAS are equally useful choices. OLS regression, along with interpretation of regression coefficients and their significance is covered in the course. Additional topics include the basics of correlation, correlation versus causation, and discrete regression. Unlike a focus on software and statistics, the notion is to inculcate quantitative reasoning to solve a management accounting problem, with help of data and analytics.
		3.10 Accessing Data and Building Innovative Fintech Models Using XBRL and APIs Part 1 (Basic, Intrinio)-Joseph French, Intrinio	Learn how to use the Intrinio data marketplace, where economic data, stock prices, analyst estimates, historical data, and more are available in one accessible platform. Learn the newer ways of apps, data feeds, and Excel and API

			<p>syntax to revitalize financial analysis and valuation in your classes.</p>
		<p>4.10 Tax Analytics Program at North Carolina State University (Basic, Moodle)-Jennie Dirienzo, North Carolina State University</p>	<p>Learn about the flexible online Tax Analytics and Technology Certificate. Earning this graduate certificate requires completing 12 credit hours of coursework delivered through 12 one-credit hour modules. Each module will include practical tax applications and projects. Modules are Group Internet Based so students won't need time off from work or face long commutes to campus. There is no advanced preparation for these modules. Students will leave the program with the knowledge and skills to extract, manipulate, analyze and summarize data to solve tax problems and opportunities and to effectively communicate actionable tax and business strategies to organizations.</p>
		<p>5.10 Curriculum Development and Growing Your Program Q&A (Basic, None)-Ron Freeze, University of Arkansas and Gia Chevis, Baylor University</p>	<p>A "lessons learned" Q&A session from those who have implemented D&A programs and for those who are just beginning the implementation process.</p>
5:00 pm-6:00 pm	Dinner	On your own or Participate in meet-up groups	
6:00 pm-9:00 pm (Refreshment Break 7:40-8:00)	Hands-on Workshops (select one)	IDEA-Allen Blay, Florida State University	<p>IDEA provides for an excellent opportunity for both undergraduate and graduate students to get their hands onto client-style data and perform common risk assessments used by nearly all firms. Although software may vary in practice, the concepts are relatively standard, and experience with one software will benefit students greatly. The biggest issue with implementing data and analytic tools in the classroom is that faculty often feel uncomfortable learning the software themselves. This workshop will help allay these fears through hands-on experience with the most commonly used features in IDEA. Faculty will leave the workshop with confidence that this is something both manageable and worth bringing into either an undergraduate or graduate classroom. This session uses the free educational version of the IDEA software and a sample client data set that facilitates the use of many of IDEA's key features.</p>

		Teradata University Network and University of Arkansas Data Sets-Susan Baskin, Teradata and Ron Freeze, University of Arkansas	Learn hands-on about Teradata University Network (TUN) , a group dedicated to being the premier academic resource for knowledge about data warehousing, decision support systems, business intelligence, and databases. Also, learn how to access and utilize the Walton College Enterprise Systems large-scale, real-world databases on their Teradata University Network server. Two visualization and analysis exercises will make use of the Dillard's dataset to provide a hands on classroom experience.
		NetSuite and the HUB of Analytics Education-Danielle Ferretti, NetSuite and Charlie Bame-Aldred, HUB of Analytics Education	The HUB of Analytics Education Dataset is available by using Netsuite.com, a cloud ERP. Learn how to obtain and utilize a Netsuite.com account with the Dataset loaded in your classes.
June 7, 2018			
7:00 am-8:00 am	Continental Breakfast	Included. Peer reviewed Posters on display throughout the day.	
8:00 am-9:40 am	Concurrent Sessions (select one)	1.11 Using Tableau to Find Indications of Fraud in an Original Data Set (Basic; Tableau, Data)-Tawei (David) Wang, DePaul University	Work through a series of exercises using Tableau and our original dataset. In the final exercise, you will find indications of fraud within the data. The material is suitable for either undergraduate or graduate data analytic courses to demonstrate how visualization methods can show potential fraud patterns.
		2.11 Insights from Integrating Public Data Sources (weather) with Business Data (Intermediate; Excel, Access, Metro Bike data, Weather data)-Kim Church, University of Missouri-Kansas City and Pamela Schmidt, Washburn University	How to use the Microsoft ACCESS relational database application to organize business data, integrate outside public data sources, and to perform data analysis activities to support realistic business decisions. The Metro Bike operational data is from real business operations and presents many of the typical issues faced in early stages of data analysis. External sources of public data such as publicly available weather data can be helpful in seeking greater insights from operational business data.
		3.11 Using Excel Pivot to Post Journal Entries and a VBA Macro to Clean Data (Basic; Excel, VBA)-Eric Wen, University of Hawaii-West Oahu	This session will show how to adapt journal entries to be pivotable, and then pivot them to determine ledger balances. After that, the ledger balances can be used to create trial balances and the financial statements. Part of the process of preparing the data for the pivot can include a

			<p>short macro written in Visual Basic for Applications, VBA. This option will also be explained and demonstrated in this session. Because this technique is efficient and only requires Excel, faculty could assign more problems that involve closing the books and preparing financial statements. By repeating this process throughout a course, students may develop a better understanding both of the mechanics of creating pivot tables in Excel and of completing the accounting cycle.</p>
		<p>4.11 Emerging Topics for an AIS Course (Basic, TBD)-Delwyn DeVries, Belmont University</p>	<p>Join AIS faculty in a discussion of the future of the required AIS course and its coverage.</p>
		<p>5.11 Data Analytics for Accounting: Fundamentals and Labs in Auditing, Managerial, Financial, and Tax (Intermediate; Excel, Tableau)-Ryan Teeter, University of Pittsburgh</p>	<p>Ways to incorporate accounting domain-specific labs and projects into an Accounting Data Analytics elective in a Master of Accountancy program. It assumes very little experience with data analytics beyond an introductory AIS course and explores data modeling and visualization techniques as well as deep dives into artificial intelligence in domain-specific areas. It is also the basis for the upcoming title Data Analytics in Accounting from McGraw-Hill by Richardson, Teeter, and Terrell.</p>
9:40 am-10:10 am	Break	Continental Main Foyer	
10:10 am-11:50 am	Concurrent Sessions (select one)	<p>1.12 Practicing Benford's Law: A Mock Audit Case (Intermediate; Excel, Benford's Law Excel software \$, EYARC P-card data, Access)-Nikki Shoemaker, Stephen F. Austin State University</p>	<p>A Benford's Law project that uses publicly available P-card data (available from EY University Relations) to teach students how to complete a Benford's Law analysis. This data can be used in conjunction with a Microsoft Access project also from EY University Relations. It is a realistic example for students to analyze data and evaluate their findings to determine areas that warrant further investigation.</p>
		<p>2.12 Making Business Decisions Informed by GPS Data (Basic; Excel, www.Googlemaps.com, https://batchgeo.com/, Metro Bike data)-Pamela Schmidt, Washburn University and Kim Church, University of Missouri-Kansas City</p>	<p>An introductory exposure to the use of GPS (Global Positioning System) coordinates as data for business analysis. Using GPS data along with other forms of operational business data is a great example of alternative "Big Data" information types is in common use in many businesses today.</p>
		<p>3.12 Assessment of Inventory Costs and Sales Revenue Case using Excel and Tableau</p>	<p>This project is designed to incorporate data analytics skills in the assessment of key topics in the Intermediate Accounting</p>

		(Intermediate; Excel, Tableau)-Feng Chun Tang, Virginia Commonwealth University	series, inventory costs and sales revenues. Students follow a project outline that guides them through the analysis of inventory costs and revenues using a data set adapted from Tableau's Superstore data. This data includes 9,995 rows and 26 columns of data related to inventory transactions. Class discussions are conducted related to key points in this assignment, and a guest lecturer from practice presents on the topics of the importance of analytics skills in public accounting. Student learning is assessed in subsequent quiz and exam questions.
		4.12 Topics for Advanced AIS Courses (Advanced, TBD)-Deb Cosgrove, University of Nebraska-Lincoln	Join AIS faculty in a discussion of the future of advanced AIS courses and their coverage.
		5.12 Cultivating an Analytics Mindset in Financial, Managerial, and Auditing Classes: Practical Exercises to Enhance Existing Online and Residential Instruction (Basic; None)-Shelley Curling, Penn State University	Weaving an analytics mindset thread through introductory courses encourages change and growth in the short term, benefiting the students as they tackle more advanced skills development in later courses. Specific exercises and discussion prompts will be shared that are used in my in-class small groups and in my online discussion boards.
12:00 pm-1:00 pm	Lunch	Continental Main Foyer	
1:00 pm-2:40 pm	Concurrent Sessions (select one)	1.13 Enhancing Understanding of Audit Data Analytics Decisions via a R Hands-on Case Solution (Intermediate; R, R Script, Data)-Thomas E. McKee, Medical University of South Carolina	One aspect of the Norwegian School of Economics' experimental graduate course "Digital Auditing" was four days of lectures with hand-on R solutions of a single case partially based on a real company. A single, 30,000 record data file was analyzed via the following methods: Clustering, Decision trees, Regression, and Neural networks. Each individual class included a lecture on one of the four techniques followed by a line by line detailed explanation of R commands necessary to apply that technique on the case. The comparative advantages or disadvantages of each technique from an audit perspective were discussed. Students were then given the assignment of analyzing and presenting to the class two additional cases while applying what they had learned.
		Managerial Cases (Shared Session, 50:50): 2.13 Assessment of Customer Satisfaction and Operational Performance (Intermediate; Excel,	This case describes an airline that collected operational performance and customer satisfaction panel data for a 12-month period. The airline conducted three initiatives to

		Data)-Bernhard Reichert, Virginia Commonwealth University; and	increase customer satisfaction in the past year. Students receive this panel data and have to provide a recommendation on which initiative has had the largest impact on customer satisfaction to identify how the airline should allocate resources in the future. Students conduct a regression analysis in excel and provide an interpretation and recommendation of the output.
		2.13 Airline On-time Performance (Intermediate; Excel, Power Pivot, Data)-Mi (Jaime) Zhou, Virginia Commonwealth University	The project uses airline data from the Bureau of Transportation Statistics and assumes students work for a travel agency where they analyze airline on-time performance to help clients have the best possible travel experience. Specifically, students are required to answer questions from different aspects such as departure and destination airports, traveling dates, and carriers. They must (1) use an Excel formula to generate necessary information beyond the original dataset, (2) use conditional formatting to highlight important information, (3) create Pivot tables and Pivot charts to summarize and visualize information, and (4) assemble meaningful information into a dashboard for their manager (i.e., decision makers).
		3.13 Accessing Data and Building Innovative Fintech Models Using XBRL and APIs Part 2 (Intermediate, Intrinio)-Joseph French, Intrinio	Learn more about how to apply Fintech in your courses. The Intrinio data marketplace makes it easy to revitalize financial analysis and valuation in your classes.
		4.13 Determining Status (Independent Contractor/Employee) Tax Case (Intermediate; Access, zipped Data Files)-Faye Borthick, Georgia State University	A case jointly developed by AIS and Tax faculty that analyzes company practices and compensation data to assess compliance with IRS factors. Students perform the analysis by querying a 6 MB file with compensation data from an accounting system.
		Course Poster Roundtables: 5.13 A Case-based Data Analytics Course for Accounting (Intermediate; None)-Michael Stoel, Miami University; and	A case course focused on various data analytic methods to create more analytic awareness within students. The course uses existing cases outside of accounting to identify techniques and analytic ideas and then asks students to consider how the concept may be utilized within the field of accountancy.

		5.13 Data Analytics for Accounting Graduate Students (Basic; None)-Elizabeth Felski, SUNY Geneseo	Student survey findings and some course materials from a new master level required course, data analytics for accountants that was run for the first time in the fall of 2017. The course consisted of extensive use of tableau and excel as well as TeamMate analytics, Idea, the HUB of analytics education, a case study developed by PwC, Pixystems, and self-authored materials.
2:40 pm-3:10 pm	Break	Continental Main Foyer	
3:10 pm-4:50 pm	Concurrent Sessions (select one)	1.14 Tackling D&A and Auditing Together-Allen Blay, Florida State University	Reconvene to debrief and discuss next steps in assimilating data and analytics into Auditing.
		2.14 Tackling D&A and Managerial Together-Ann Dzurainin, Northern Illinois University	Reconvene to debrief and discuss next steps in assimilating data and analytics into Managerial.
		3.14 Tackling D&A and Financial Together-Alex Gabbin, James Madison University	Reconvene to debrief and discuss next steps in assimilating data and analytics into Financial.
		4.14 Tackling D&A and Tax Together-Nancy Nichols, James Madison University	Reconvene to debrief and discuss next steps in assimilating data and analytics into Tax.
		5.14 Tackling D&A and Curricula Together-David Stott, Ohio University	Reconvene to debrief and discuss next steps in assimilating data and analytics across the accounting curricula.
5:00 pm-6:00 pm	Dinner	On your own or Participate in meet-up groups	
6:00 pm-9:00 pm	Celebration	Award Certificates, Attendee Takeaway Showcase, and Raffle	Cross the finish line with your peers as we learn others' takeaways and plans for the coming year!