



News Release

How Do You Win Hackathons? Northwestern University Grad Students Show How It's Done with Teradata Analytics

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Winners focus on real-world business case, identify the most impactful reviews on Amazon

Teradata (NYSE: **TDC**), the leading data and analytics company, today announced student winners from the Teradata and Northwestern University Hackathon at the school's McCormick Education Center held on May 2. The winning graduate students, Lauren Yu and Jessica Chan, will receive trip packages to the upcoming **Teradata PARTNERS conference** to present their findings to a global audience of data-driven professionals.

For this year's Hackathon, the Northwestern University Master of Science in Analytics (MSiA) Program, **one of the top data science programs**, challenged 22 graduate student teams to put their data science skills to the test while solving real-world big analytics problems. With only a few hours of training, the students used **Teradata Aster Analytics** to compete, utilizing Teradata Multi-Genre Advanced Analytics™ techniques including pattern, text, prediction and graph analytics.

Hackathon winners Yu and Chan analyzed 500,000 Amazon reviews to pinpoint the characteristics that best predicted a review's "helpfulness." The team built a series of analytical models to break down a subset of the data consisting of all reviews that had at least five helpful notifications. They then developed a "helpfulness ratio" that allowed them to compare the impact of variables like word count and readability. The results of their analytical exercise are detailed in the Northwestern University newsletter, included **here**.

"In this Hackathon, these students did an excellent job when tested with real-world challenges such as short deadlines, unfamiliar tools, and the need to apply soft skills such as creativity, collaboration, and communication. You can complete a hackathon with coding skills, but to win the Northwestern Hackathon you need the full skill



stack,” said Roger Fried, senior data scientist on Teradata Aster’s Advanced Strategy team.

“What I enjoyed about the winning presentations in this Hackathon was that, despite my familiarity with the datasets and the normal solutions, the students in this program put a fresh spin on the solutions and surprised me with their approaches,” Fried added.

The Hackathon was led by Northwestern University Professor and MSiA program director Diego Klabjan with top Teradata Aster Analytics data scientists including Greg Bethardy, Adam London, Roger Fried and Choudur Lakshminarayan.

The Teradata team met with students prior to the Hackathon to train them on **Teradata Aster** analytics tools and techniques. After the eight-hour event, student teams discussed their findings with a panel of judges that included Teradata members, a recent MSiA alum, and returning judge Szabolcs Paldy, vice president of digital marketing at Discover Financial Services. Teams were assessed based on their analytic approach, creativity, and final presentation.

Northwestern’s MSiA program yields a 15-month master’s degree that immerses students in a comprehensive, applied curriculum of data science, information technology, and the business of analytics. The program emphasizes hands-on experience and provides students with a rigorous course of study in all three areas of analytics: predictive, prescriptive, and descriptive. Students completing the program have received offers to work for organizations including Nike, Apple, Google, IBM, NASA, Teradata, and Facebook, among others.

“I think the analytics discipline is moving in three concurrent directions: artificial intelligence, self-service data science, and real-time decision making,” said Dr. Klabjan. “None of these is now completely ready for prime time - with rare exceptions, but solutions are in good progress.”

“Our partnership with Teradata is very beneficial for the MSiA program, because it gives students access to high-quality industry instruction and analytic software,” he added. “The hackathon environment encourages students to challenge themselves and prepares them to solve real-world problems. Teradata’s team is extremely professional and well prepared, and the students learn substantially from the Aster scientists’ expertise and knowledge.”

“Practical business analytics typically involve imbalanced binary classifications, where the total number of positives is far less than the negatives,” said Greg Bethardy, data scientist and solution architect at Teradata. “This is common across all industries, for example in financial fraud detection, medical diagnosis, and manufacturing anomaly detection, to name a few. Several of the teams recognized this in the data sets. They improved their prediction accuracy using the Aster machine learning functions. The students demonstrated techniques such as over/under

sampling, averaging together multiple models, and modern ensemble methods.”

In addition to sponsoring the annual Hackathon at Northwestern University, Teradata’s academic program, **Teradata University Network** (TUN) hosts a variety of workshops, student competitions, events, and offers through its web-based portal a cloud environment with materials covering everything from data science and analytics to big data and data warehousing, all provided at no cost to the universities, faculty or students. TUN has over 4,500 registered faculty members and tens of thousands of students from over 2,500 universities in 117 countries. Finalists for the TUN 2017 **annual student competitions**, the 2017 Analytics Challenge and 2017 Data Challenge, partnering with the charity **Rise Against Hunger**, will also be presenting in sessions at the Teradata PARTNERS Conference.

Relevant News Links

- Get involved in the Teradata Aster Community: **Here’s a link to the web page**
- Northwestern University newsletter coverage of the Hackathon **HERE**
- Seamless Advanced Analytics for Everyone – **Teradata Aster Analytics – quick overview**

About Teradata

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Media Contact

Jennifer Donahue

Teradata

Jennifer.Donahue@Teradata.com

