

# Broadening Student Learning Experiences Through Academic Initiative Partnership

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NJ Edge Teaching with Technology Showcase  
William Paterson University

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# How did it start?

May, 2016:

IBM round table event

hosted at

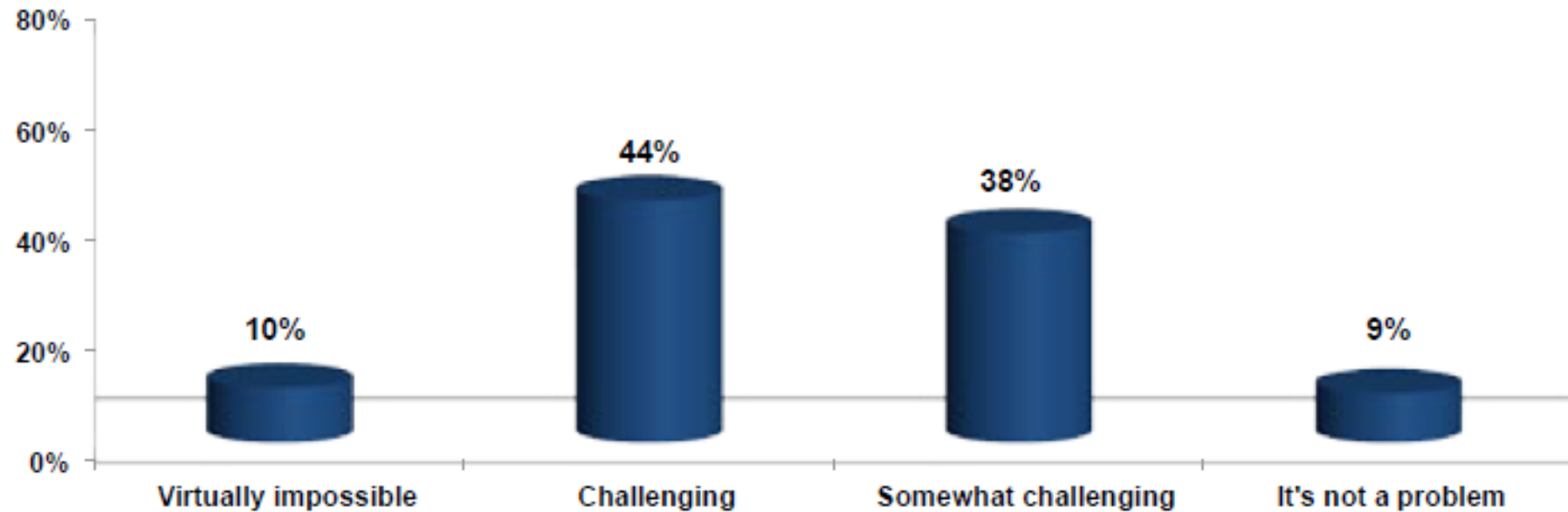


Companies present: IBM, UPS, AIG,  
ADP, Viacom Infinity



# The message from employers: mainframe skills are hard to find!

**FIGURE 8** Degree of Challenge in Finding Candidates With IBM Mainframe Skills



# Question:

## Are students effectively prepared for the workforce?

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**Yes**

96% of Chief Academic Officers  
in colleges and universities\*



**Yes**

33% of business leaders\*

# Two challenges. Challenge 1 of 2: schools don't teach what IT industry needs

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Image Sources:

<http://clipartsign.com/upload/2016/02/21/vintage-college-image-the-graphics-fairy-clipart.jpg>

[https://www.ivyexec.com/career-advice/wp-content/uploads/2014/07/resume\\_gap.png](https://www.ivyexec.com/career-advice/wp-content/uploads/2014/07/resume_gap.png)

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# Two challenges. Challenge 2 of 2: curriculum changes



## Curriculum approval process:

- a) ....
- b) ....
- c) ....
- d) ....
- e) ....
- f) .....
- g) ..... go the next page





# Approach --->



< --- Creative ways to incorporate mainframe content into curriculum

1. Get students involved in extra-curricula activities
2. Build and keep up partnerships with IBMers involved in Academic Initiative program

# What have we done so far?



**IBMers present to students during a concurrent session**  
at STEM C<sup>2</sup>, Bergen's Annual Research Summit

Students in Computer Club incorporate mainframe  
technology piece for the **1<sup>st</sup> time** into their GRACE AI and  
Search Engine research project





# Students present at 2017 ECC conference @ Marist

Spring 2017

**June 2017**

...

...

Bergen's computer club team presents their GRACE AI and Search Engine at annual Enterprise Computing Conference at Marist College



# Students enroll in the 1<sup>st</sup> summer mini-course on Cobol



8-weeks long

Open to all, experimental by nature

Supported by **STEMatics** grant

## **August 2017:**

5-student team led by Professor Alan Eliscu travels to participate in Student Career Day of SHARE, Professional Conference in Providence, RI

Not knowing what to expect...

# Students travel to SHARE conference in Providence, RI

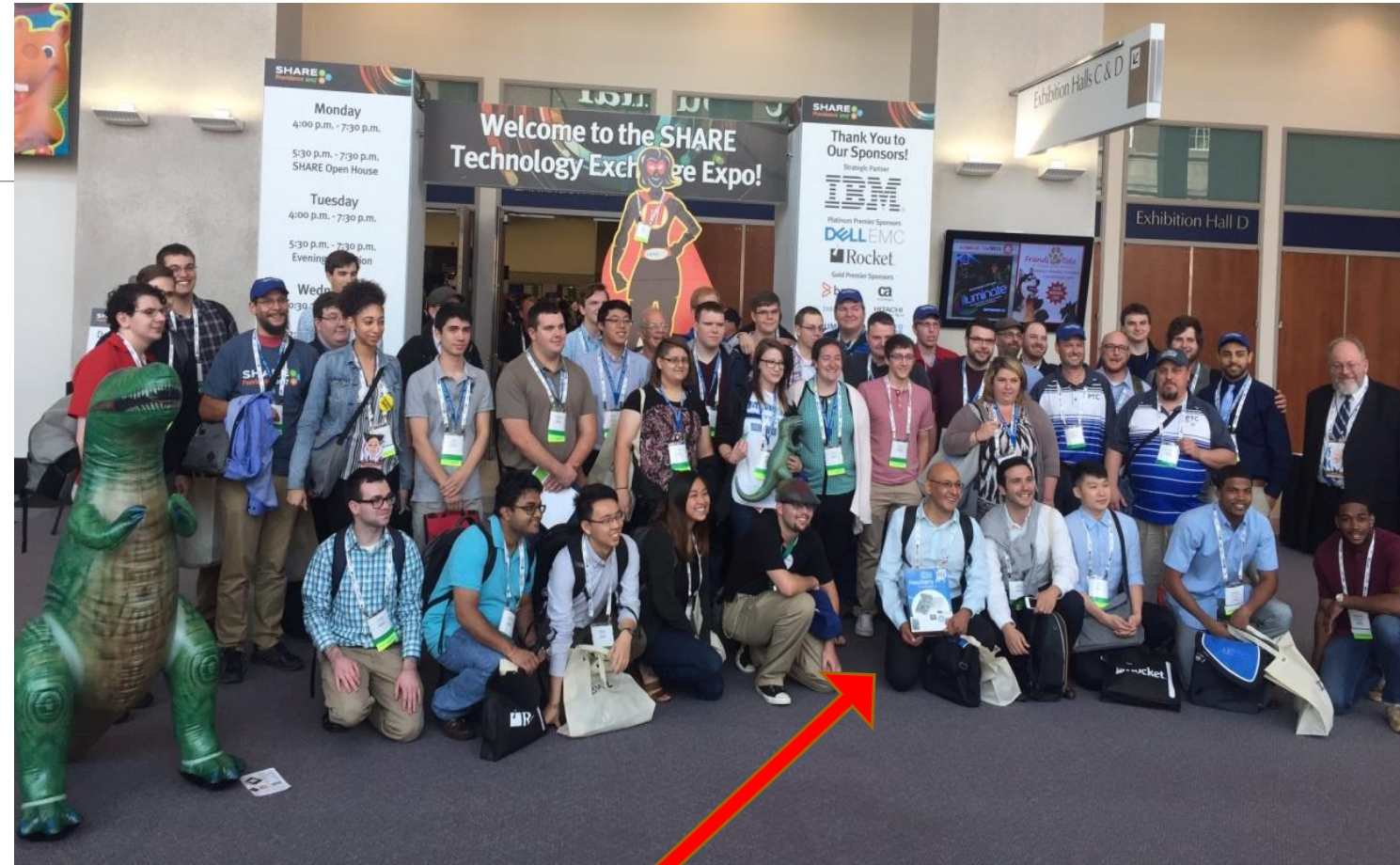


August 8, 2017:

**60+ students**  
from **16 colleges and universities** from around the country

participated in [Student Career Day](#) and **competed in the Master the Mainframe Hackathon.**

**Congratulations** to the Hackathon winners:  
**1<sup>st</sup> place:** Jonny Lazarte from Bergen Community College,  
**2<sup>nd</sup> place:** Akeem Brooks from North Carolina A&T,  
**3<sup>rd</sup> place:** Dan Synder from New Brunswick College.



**1<sup>st</sup> place winner: Jonny Lazarte from Bergen Community College**  
**All 5 students from Bergen finished among top 10 contestants**



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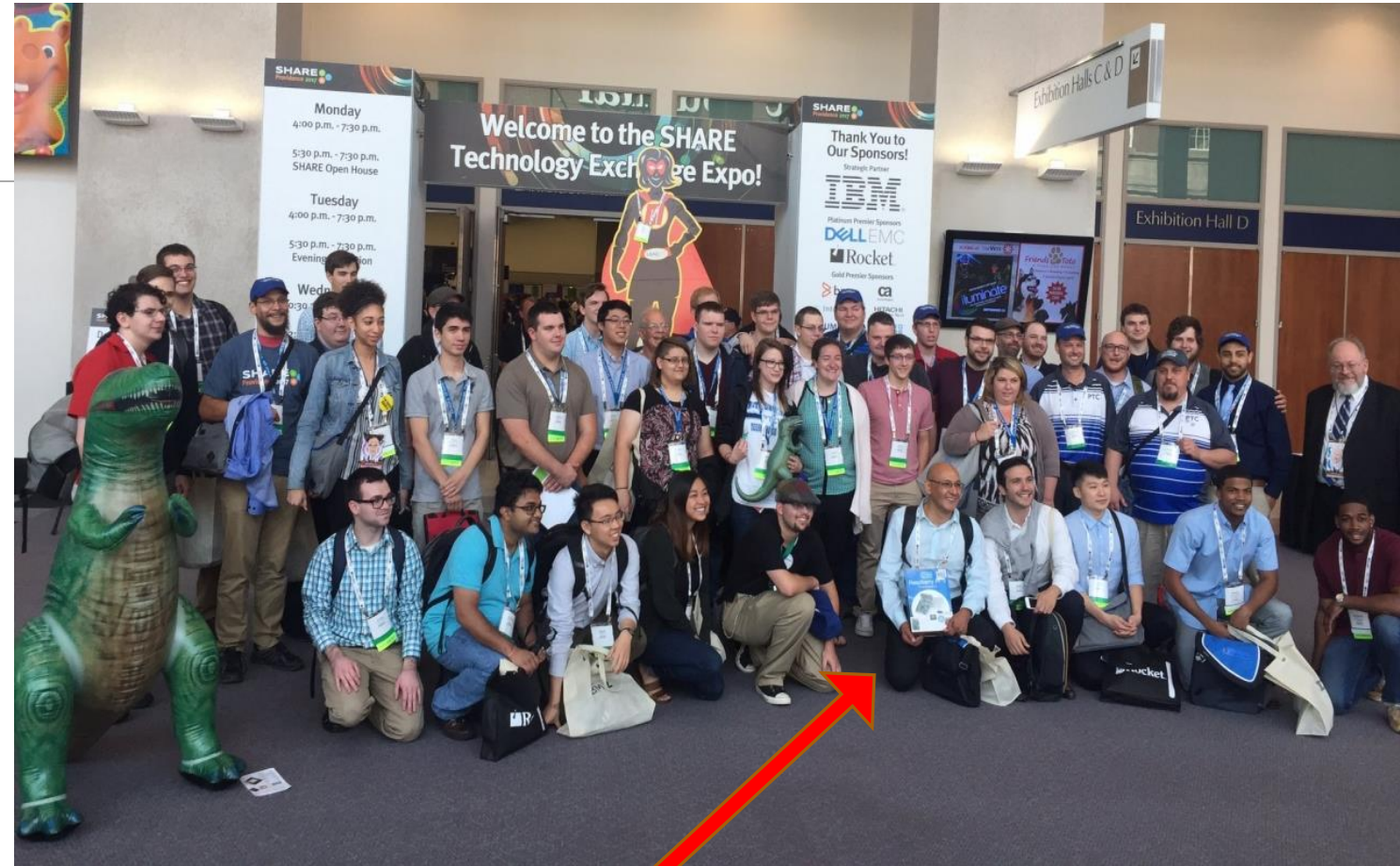


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# Thrill, excitement, and self-confidence: we can do this!



Revamped CIS-271, Computer Organization and Assembly Language to incorporate mainframe platform

All enrolled students are to participate in IBM's Master the Mainframe Learning System

Established Master the Mainframe Club

Organized 1<sup>st</sup> trip to IBM Headquarters



**Every Friday: C304 / 10am – 12pm**

Before the meetup:

- Register for the contest at [masterthemainframe.com](http://masterthemainframe.com)
- Install the pre-req software on your laptop



# Riding the wave: expand and explore!



Over 120 students enrolled in CIS-271  
get introduced to Mainframe  
technology

A group of 42 students and 3 faculty  
members take a day trip to IBM  
Headquarters in Poughkeepsie , NY





# Riding the wave: compete!



**Master the Mainframe Hackathon**

when? Friday, April 13th 1 - 3 PM where? TEC-107 Paramus campus at the STEM C<sup>2</sup> Research Summit

**Master the Mainframe** is the world's largest student mainframe competition and it has returned for its 13th year in a row with new prizes and new challenges for students around the world.  
**NOW IN BERGEN COMMUNITY COLLEGE!**

You must register prior to the event:  
[tinyurl.com/2018BCCHackathon](http://tinyurl.com/2018BCCHackathon)

**WIN A \$200 GIFT CARD**  
while gaining unique skills that can land you a career in Fortune 500 companies around the world!

**NO EXPERIENCE NEEDED**

Learn more at [ibm.com/it-infrastructure/z/education/master-the-mainframe](http://ibm.com/it-infrastructure/z/education/master-the-mainframe)

\*\*\*The content of this informational sheet was developed under a grant from the U.S. Department of Education. However, the content do not necessarily represents the policy of the U.S. Department of Education, and you should not assume endorsement by the U.S. Federal Government.

## Bergen Hosts Master the Mainframe hackathon

Scoreboard titled "EXPIRED" showing a list of participants and their scores. The IBM logo is visible on the left.

Score	First Name	Last Name
147	Joel	Lim
141	Jadin	Luzuriaga
136	Marien	Herrera
136	Fatih	Durmaz
110	Andres	Garces
110	Brian	Aguirre
105	Heather	Murphy
105	Emily	Marzano
105	Thomas	Bravo
080	Alex	Reitneyer
070	Gustavo	Prado-Longo
070	Cesar	Hernandez
060	Hukaroy	Jouraboeva
055	Matthew	Piecko
055	Ayomide	Akingbade
055	Jered	Gibb
055	Heber	Portal-Reyes
055	Afua	Anim
055	Aidan	Castellucci
055	Justin	Meyer
055	Zachary	Citi
050	Raymond	Rodriguez
020	Kunjesh	Kakadiya
020	Pooja	Solanki
015	Matthew	Lilic

35 high school and college students (and 1 toddler) participate



# Riding the wave: invite and collaborate!



IBMers make big presence at 2018 STEM C<sup>2</sup> Research Summit



**Frank de Gilio**  
**IBM Corporation**  
Distinguished Engineer, Cloud Architect  
**Keynote Speaker**

**Luis De Abreu**  
BCC STEMatics Grant Program Director  
**STEM C<sup>2</sup> Research Summit Conference**  
Coordinator

# Student panel at 2018 ECC conference @ Marist

Spring 2018

**June 2018**

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...



Bergen students present their updated GRACE  
AI and Search Engine research project

and

participate in the Student Panel at annual  
Enterprise Computing Conference at Marist  
College



Prof. Eliscu presents at the conference

In summer, students work on mainframe  
blockchain applications



# More events and activities



Continued using revamped CIS-271 with IBM's Master the Mainframe Learning System

Continued Master the Mainframe Club

Organized 3<sup>rd</sup> consecutive trip to IBM Headquarters (46 students attended)

Organized Industry Panel and MTM Hackathon at Bergen within Legends of Z framework

Conducted 2<sup>nd</sup> round table: **what 's next???**



# Embracing Challenge 1 of 2: teach what IT industry needs

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# WHAT'S NEXT

Plans...

Ideas...

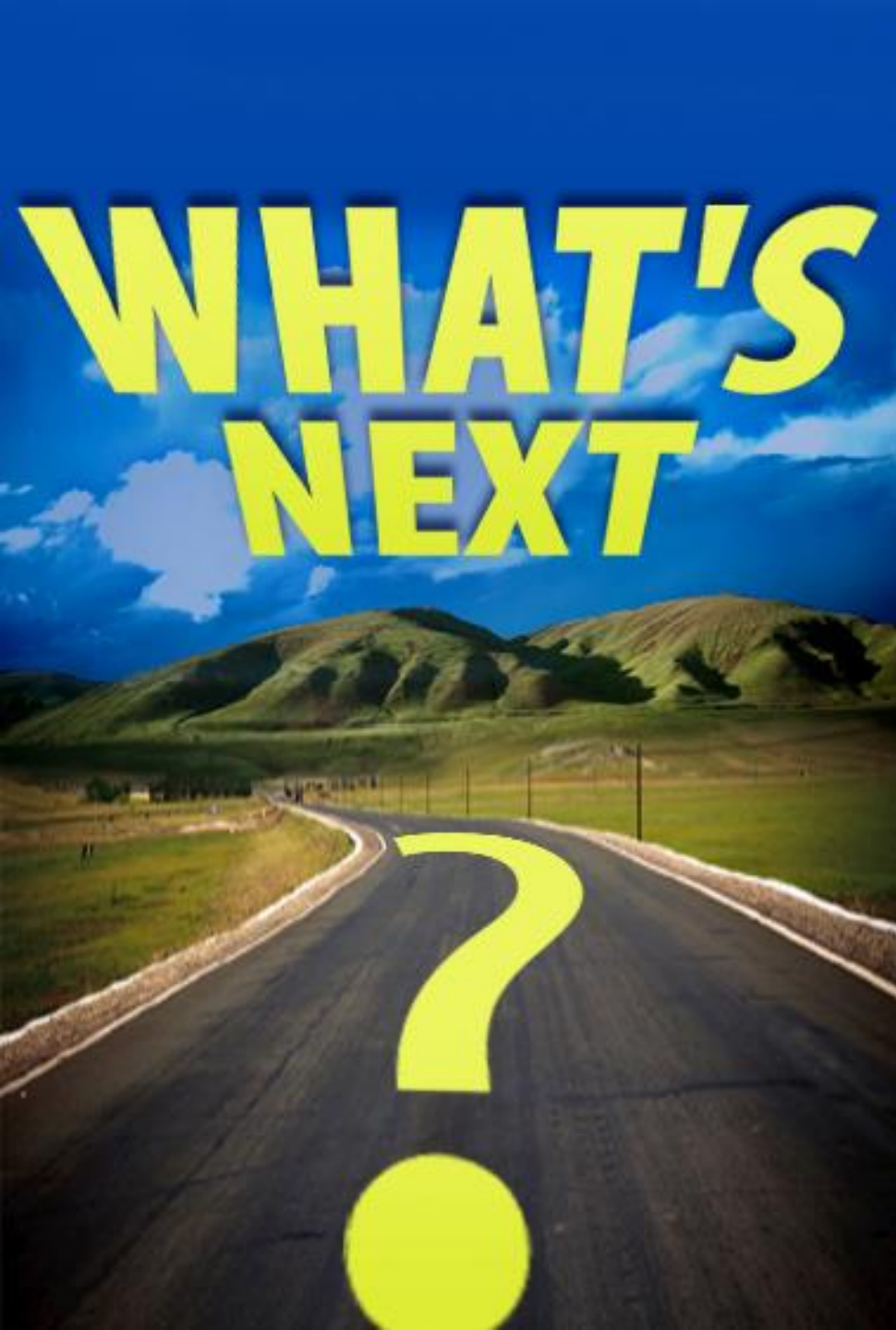
This Semester:

Planning another trip in March of this year

Continue with the Master the Mainframe Club

Working to invite a guest speaker to 2019 STEM C<sup>2</sup>





## Benefits...

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students explore professional environment  
and build needed IT skills

## Challenges...

getting internships or co-op opportunities