

# West Virginia University Masters of Science in Business Data Analytics

Brad Price, Ph.D.

Department of Management Information Systems  
College of Business and Economics



# Outline

- Program Overview
- Technology
- Outcomes
- Challenges of Online Education



# Our Faculty






# Our People







A group of approximately 18 people, mostly men in business suits and a few women, are posing for a group photo. They are standing in two rows. In the front row, a woman in a pink cardigan and patterned dress is holding a large blue banner with the West Virginia University logo. To her left, a man is holding a large blue sign with white and yellow text. The background is a plain wall with a framed picture hanging on it.

**2017 Inaugural  
Graduating Class**

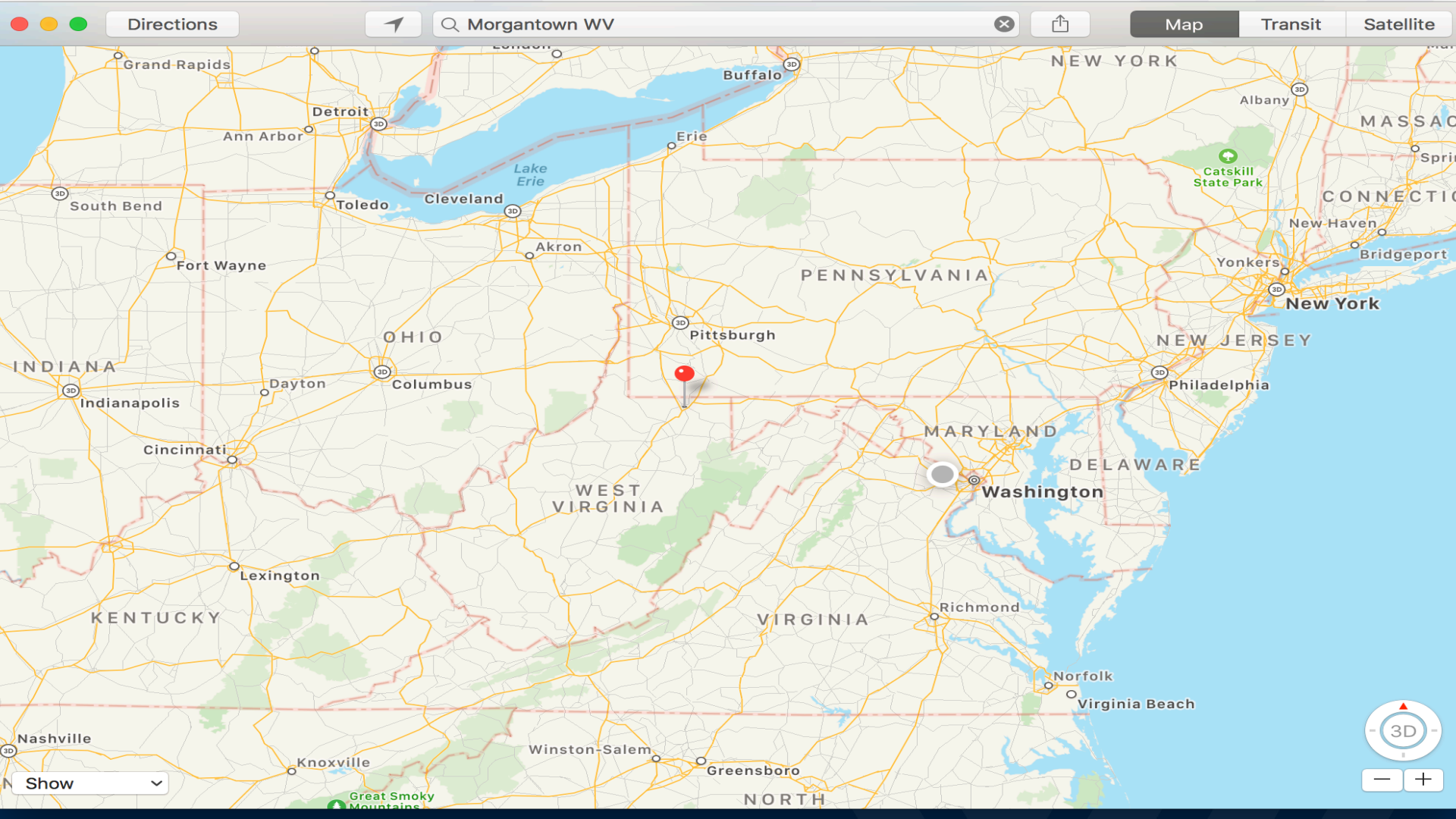
**M.S. BUSINESS  
DATA ANALYTICS**

 West Virginia University

**WEST VIRGINIA**

**MOUNTAINEERS**





Directions



Morgantown WV



Map

Transit

Satellite





# Quick Info on WVU

- An R1 and Land Grant Institution
- Student Body: 28k Students (15k from in-state)
- Tuition
  - In-State: \$4,800 per semester
  - Out-of-State: \$11,800 per semester
- Member of the Big 12 Conference





# Program Structure

- 30 Credit Program– 10 Courses
  - Data Science
  - Operations Management/Research
  - Business Impact and Soft Skills
- Hybrid Program (2 Residencies Required)
- 12 and 24 Month Options
- 8 week courses



Fall			Spring		Summer
August	Term 1	Term 2	Term 1	Term 2	Term 1
Orientation/ Bootcamps	BUDA 525: Statistical Methods I	BUDA 515: Data Collection and Ethics	BUDA 530: Statistical Methods II	BUDA 535: Data Mining	BUDA 550: Data Visualization
	BUDA 510: Business Intelligence	BUDA 520: Database Management	BUDA 540: Decision Analytics	BUDA 545: Simulation Methods	BUDA 555: Capstone/ Practicum

- Built as a 5+5 Model for Other Online Programs with a “Data Science Core”
- “Create critical thinkers and communicators ...”



# Program Structure

- Maximum 35 students in each course
- Asynchronous Delivery
  - Not just filmed classroom lectures
- Team Based Approach
  - Decided and introduced at Orientation
  - Matches skill sets
  - 4-5 members
- 1 Year Program-- Approximated \$22k
- 2 Year Program-- Approximately \$29k



# Institutional Thoughts

- Capstone Projects
  - Secure Data
  - Dual Authentication
- Instructional Quality
  - How do we guarantee it?
  - How do we maintain it?
  - DS is a shifting landscape
- Faculty Recruitment/Allocation
- Culture
  - Across College and University



# Program Technology

**cloudera**

 **Studio**

**APACHE**  
**Spark**<sup>TM</sup>

 **python**<sup>TM</sup>

**GitHub**

  
PostgreSQL



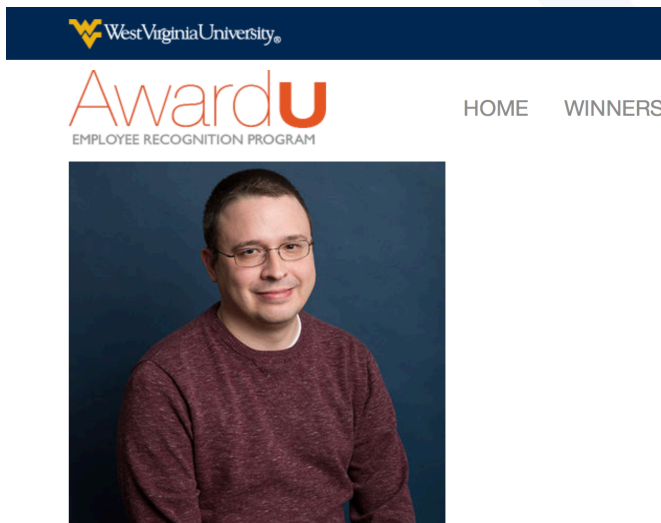
 **tableau**



**Microsoft**



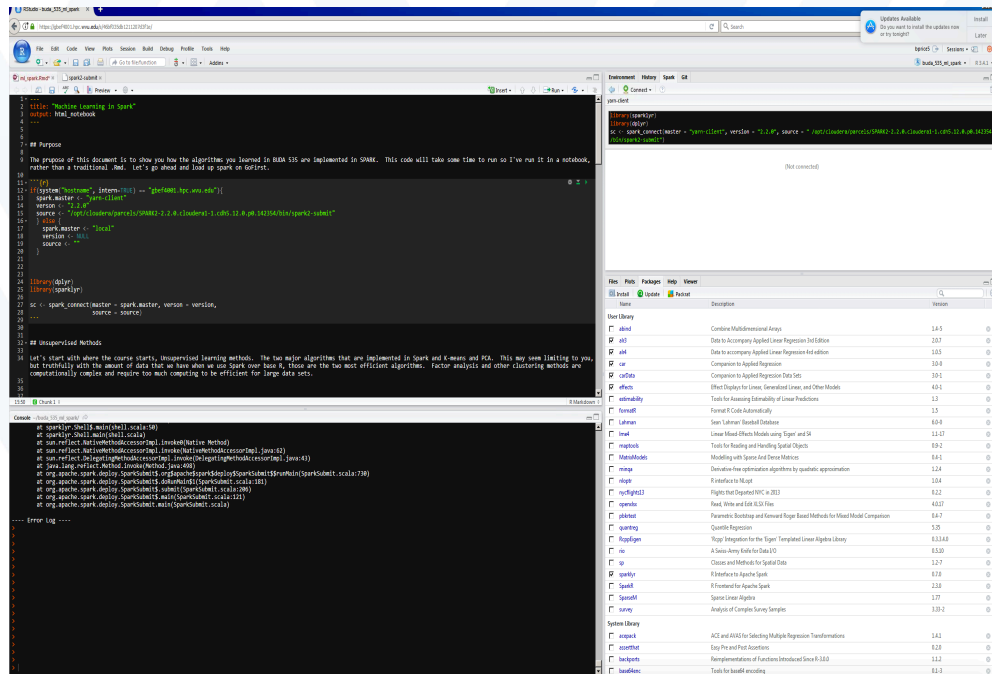
# Teaching Specific Cluster



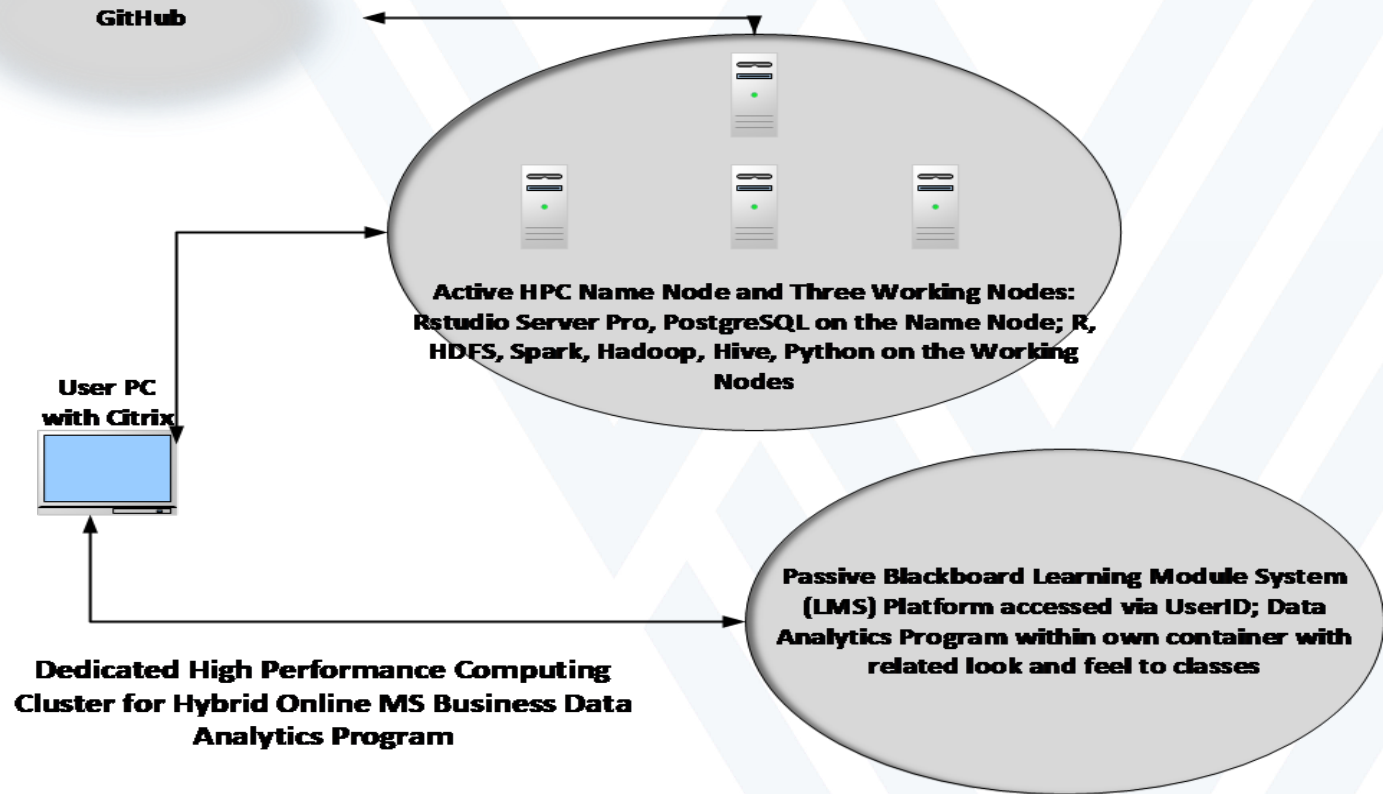
Nathan Gregg, Research Computing

Role Model, 4th quarter 2017

**Bio** For his dedication and support in launching a new academic program that depends on the High Performance Computing cluster, Nathan Gregg is the latest RockIT Award winner for Role Model. Nate is not only hands-on with the technology, but also works to









# Outcomes

- How do we measure outcomes?
  - Student placement of those actively looking
  - Learning objectives
- Placement Data
  - 2017-2018 admissions: All students using skill in full time position by December '17
  - 2016-2017 admissions: All students using skill set in full time position within 2 months of graduation (Oct '17)





**Ryan Lynch** • 1st

Analytics and Reporting Leader, Enterprise Asset  
Management at IBM

Durham, North Carolina

[Message](#)

[More...](#)



IBM



West Virginia University



See contact info



See connections (276)





**Kip Comack, PMP** • 1st

Deputy Lab Manager, Advanced Data Analysis & Mining Lab

Washington D.C. Metro Area

[Message](#)

[More...](#)



**CACI International Inc**



**West Virginia University**



**See contact info**



**See connections (337)**

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I am a business-focused data analytics professional with foundations in project and operations management. I add value by bringing teams together and bridging gaps in technical skills, business processes, and communication so that we can achieve our goals. Specialties: Data Analysis, Modelin...





**Kayli Matala** • 1st

Portfolio Data Analyst at United Bank Inc

Morgantown, West Virginia

[Message](#)

[More...](#)



United Bank Inc



West Virginia University



See contact info



See connections (355)





**Erik Ferguson** • 1st

Associate Data Scientist at Highmark Health Enterprise  
Analytics

Pittsburgh, Pennsylvania

**Message**

**More...**



**Highmark Health**



**West Virginia University**



**See contact info**



**See connections (77)**





**Carl Burkland** • 1st

SVP, Chief Technology Officer at WesBanco

Wheeling, West Virginia Area

[Message](#)

[More...](#)



**WesBanco**



**West Virginia University**



**See contact info**



**See connections (443)**



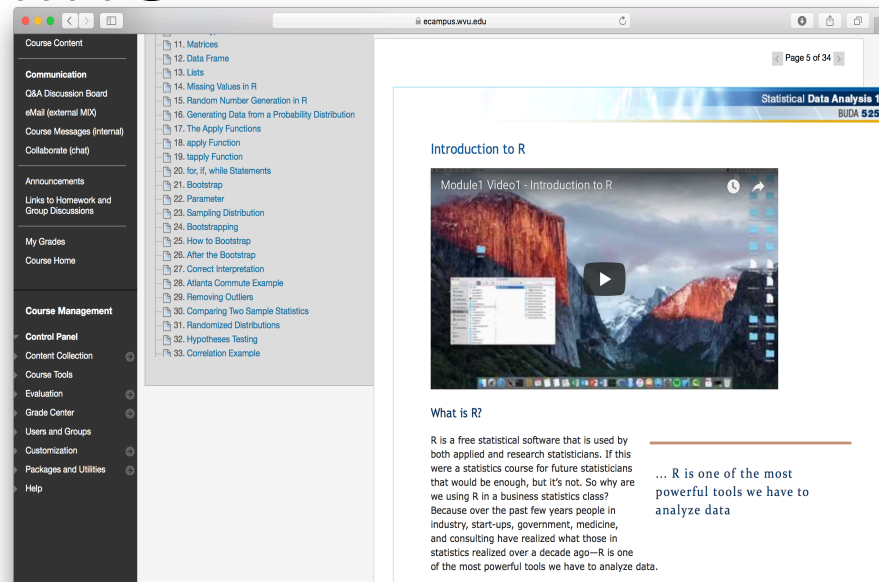
# Placement

- Dev Ops Engineer at DoD Contractor
- Data Scientist at Government Contractor
- Senior Scientist Government Contractor
- Data Analysts at Regional Banks
- Manager of Portfolio Analytics, International Pharmaceutical Company
- Many Others...



# Differences of Online

- Student Experience
  - Personal Connections
  - Technology
  - Course Quality
- Faculty Experience
  - Course Development
  - In-Load of Overload?
  - Instructional Designers?







201708-BUDA-525-7D3

Course Work

Course Information and Syllabus

Course Content

Communication

Q&A Discussion Board

eMail (external MIX)

Course Messages (internal)

Collaborate (chat)

Announcements

Links to Homework and Group Discussions

My Grades

Course Home

Course Management

Control Panel

Content Collection

Course Tools

Evaluation

Grade Center

Users and Groups

## Course Information and Syllabus



### Introduction to this Course

Instructor [Dr. Brad Price](#).



### Syllabus



### Policies & Support Resources



# Challenges of Online

- Course Management Systems
  - Preparation Overhead
  - Can it deal with the evolution of Data Science?
- Alignment of Curriculum
  - Course Development
  - Within year updates of systems
- Technology Access and Support



# Challenges of Online

- Student and Faculty Availability
  - Working Professionals
  - Time Zones
  - Partner Organizations
- Student Priorities
  - Adult Learners



# Thank You!

Any Questions?

[brad.price@mail.wvu.edu](mailto:brad.price@mail.wvu.edu)

github: bprice2652