

Welcome to the 6th annual Information Systems & Analytics Department Newsletter.

Hi Everyone,
Another academic year has come and gone. I reconnected with many of you in the past year and thoroughly enjoyed every encounter. 2016-17 was another year of change for ISA. I expect to be reporting the same a year from now.



I hope you enjoy this look into our accomplishments this year. Feel free to reach out to me if you would like more information about anything happening in ISA.

Be sure to give me a heads up if you are going to be back in Oxford so we can connect. If you can't come back, send me an update and we can connect virtually. I love to hear of your exploits.

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Summer 2017 issue

- The Year in Review [P.1](#)
- Additional Highlights & Faculty News [P.2](#)
- More Details [P.3](#)
- Student Recognition & Giving Back [P.4](#)

The Year in Review

It has been another fantastic year for Information Systems and Analytics (ISA). Of course we simply could not have the continued success and high impact on our students without the strong support we get from all of our alumni and corporate partners. I hope you all realize how much we appreciate everything you have done in the past year to support our efforts!

This was a solid year of advancing the curriculum in our programs. Many significant accomplishments were made, but the most significant change is that starting this fall Farmer School students can declare a primary major in Analytics. We combined our IS and Analytics programs into a single ISA major with two tracks. This was the latest step in our strategic direction and further exploits the expanding synergies between our two programs.

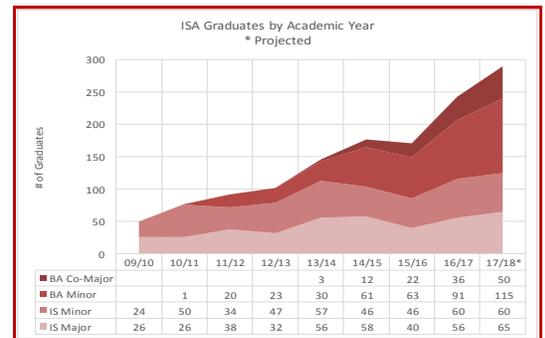
Our increased focus on cybersecurity is also moving along quite nicely. We held our first annual Cybersecurity Symposium in November and our Business Data Communications and Security class will be offered for the first time in the fall. That course will be followed by an Advanced Cyber Security elective in the spring.

There is a new track in the Analytics Co-major coming soon in Geospatial Analytics. This was accomplished with our new academic partners in Geography.

Our faculty designed the new 6 hour, 2 course statistics sequence required for the FSB core. Statistics teaches the first course and ISA the second. Finally, ISA faculty were pivotal in the implementation and delivery of the Computational Thinking course in the new FSB first year integrated core. Believe it or not, all FSB first year students now learn to code in JavaScript. (See page 3 for more information on curriculum changes.)

Healthy growth continues in our programs as shown in the graph at the top of the next column. Almost 250 ISA Majors and Minors were awarded to 2016/17 graduates, an 40% increase year to year. The growth was strong in all four programs. In fact, we ended the spring 2017 semester with more than 825 students declared in our programs. Our previous high water mark (spring 2016), was just under 750. We expect that at some point, enrollments will plateau, but they keep rolling on.

To help meet this growing demand, another new assistant professor joins us this fall (see page #2). ISA now has 19 permanent and 9 full time visiting faculty. Two more permanent ISA positions will be filled in the coming year. When you visit you will see a lot of new, talented individuals in our ranks. Seven of our 19 permanent faculty and all nine visitors have been with us for 5 years or less.



Our growth is still not meeting the demand for IS and Analytics talent in the marketplace. Many more ISA jobs than ISA graduates continues which is great for our students. Salaries speak for themselves. The average starting salaries for ISA majors were \$62,500 (IS) & \$64,000 (BA). For ISA minors, regardless of major, they were \$56,800 (IS) & \$67,400 (BA). Some of the FSB's best students are obviously leveraging our BA minor and cashing in on higher salaries.

The Center for Analytics and Data Science, our interdisciplinary partnership with Statistics, Computer Science, Accounting and Marketing really blossomed in 2016/17. It is delivering what we expected and more under the leadership of Dr. Allison Jones Farmer. (See Page #3 for CADS highlights.)

ISA faculty continue to stay active in our international programs. In the last year, Dr. Rajkumar, Dr. Sooun Lee, Dr. Gabe Lee and Dr. Jeff Smith taught students in Cuba, South Korea, Southeast Asia and Europe. I am sure many of our alumni remember their FSB international experiences affectionately. We continue to play a very active role in FSB Global Initiatives. Dr. Sooun Lee has organized a trip which will involve Miami Students in the Winter Olympics in South Korea this coming spring.

Thanks again to all of our partners and alumni for the time, treasure, and talent that you freely share to help us continue to surge ahead. Staying current and keeping programs relevant is not possible without continued external support. We become a bit more reliant on external support each year. Every little bit helps and is greatly appreciated. See page 4 for details on how to earmark Financial contributions directly to ISA. If you want to help in other ways, reach out to me or your favorite faculty member.

Faculty News:

Dr. Joseph Nwankpa—New Assistant Professor of IS



Joseph Nwankpa will join us this fall. Joseph received his PhD in Information Systems from Kent State University and has Masters degrees from the University of Windsor and the Hanken School of Business in Helsinki, Finland. He is joining us after 4 years as a assistant professor at the University of Texas Rio Grande Valley where he taught 6 different undergraduate and one masters IS courses. He brings a strong teaching background to our mix and will contribute strongly to our database and IT security courses.

New Visiting Faculty

We are also pleased to announce two new visiting faculty joining us in the fall; 1) **Dr. Carol Becker**, Ed.D. from University of Cincinnati in Curriculum and Instruction and MA from Miami in Teaching, Computer Science Education 2) **Dr. Kamil Ciftci**, PhD in Industrial Engineering from Lehigh University; We look forward to both of them joining us.

Hiring Again In the Fall

We will hire two new Assistant Professors in the coming academic year to support our continued growth. One will be hired to teach up-level Analytics courses and the other to teach in our data and technically focused courses that are in both IS and Analytics. Stay tuned...

Other Highlights:

Many other exciting things happened as summarized in the bullets below. More details on some of them are provided in the following sections

- Dr. Gabe Lee was promoted to Full Professor
- Dr. Gabe Lee received the Smucker Effective Teaching Award for Senior Faculty
- Experiential projects with real clients were done in three classes, Clients included multiple corporate partners and the FSB.
 - ◇ ISA 406 IT Project Management
 - ◇ ISA 491 Data Mining For Business
 - ◇ ISA 496 Business Analytics Practicum
- The Center for Analytics and Data Science continues to roll. More on page 3.
- The PWC led case study in Dr. Jeff Merhout's Information Risk Management course, ISA 305, was again well received and a great experience for IS students.
- Our career day in the core IS course was a successful event both semesters. This event always results in students enrolling in our programs. Thanks to everyone who pitched in. Dr. Jeff Merhout is already organizing the events this year If you are interested in helping out, reach out to him. (Merhoujw@miamioh.edu).
- Ten ISA students from the fall Data Mining Class passed the SAS Predictive Modeling Certification Exam in January.
- We held our sixth annual ISA recruiting event in the fall that was attended by ten of our Advisory Board companies.
- We awarded \$16,600 in scholarships to ISA students at our spring awards event. Thank you to everyone who contributed!!
- Our department advisory board met both semesters and provided great insight and feedback on our curriculum directions.



Join...and use **Miami University ISA Students and Alumni Group On LinkedIn**

We built this group to help us keep you informed of things happening in ISA and to allow you to keep in touch with each other. With over 540 members, I continue to hope that it will catch on as a place for you all to communicate. I am going to invest more into it to see if I can get it over the hump in the next year. It is there for you to use and I will still send out important events to you all as they arise. Feel free to share through the group as well.

To join search LinkedIn for **"Miami University ISA Students and Alumni"**

Noteworthy Gifts to ISA

Thanks to all of you who made gifts in the past year. Two specific gifts are helping us move the needle in significant ways.

Patty Morrison (CIO, Cardinal Health) made a pledge of \$15,000 per year for five years to fund ISA faculty and curriculum development efforts. She has also been instrumental in directing \$5,000 per year over the past several years for Cardinal Health ISA scholarships.

Dave Meyer (Partner, EY) was instrumental in directing \$20,000 of EY gifts our way. \$5,000 for ISA and \$5,000 for CADS scholarships and \$10,000 for other ISA initiatives.

Center for Analytics and Data Science Rolls On

The Center for Analytics and Data Science (CADS) just wrapped up an exciting second year. Dr. Allison Jones-Farmer continues to be the heart and soul of the center, but many others are now contributing to the rapidly growing impact the center is having on Miami students, faculty and corporate sponsors. A brief summary of CADS 2016/17 accomplishments follows. Visit the [CADS website](#) for more information.



Cleveland Clinic became the sixth sponsor in the fall. Sponsors make a three year commitment at \$25K per year to fund center activities and, of course, get to work with a lot of great Miami students and faculty. If you are interested in partnering, contact Dr. Jones-Farmer. Current CADS partners are

All State, Cardinal Health, Cleveland Clinic, EY, IBM, & The Shesky Family Foundation

In 2016/17, the center employed roughly 25 student interns that did many things including data driven projects for a number of organizations and managing much of the operations of the center itself. The center hosted three major events last year. In September a partners recruiting event was attended by over 100 students.

In the spring, a recognition luncheon celebrated CADS' accomplishments and formally recognized the many individuals who contributed to the Center's successes. Also in the spring, the second annual Data Fest hackathon was organized and held. The event doubled to over 100 students from three universities. There was also plenty of corporate sponsor involvement in the weekend both helping teams and judging the final outcomes. A significant part of both of the spring events were organized and executed by CADS student interns.

CADS is quickly out growing both its physical space and its level of administrative support. The space issues require a longer term fix, but to address the admin support, CADS is currently replacing the half time Assistant Director position it had in 2016/17 with 2 fulltime assistant directors and an administrative assistant who, along with Dr. Jones Farmer, will be responsible for the day-to-day operation and management of the center.

ISA Students use IBM's Watson in the Big Data Management Class



This spring, in addition to using NoSQL platforms and cloud based distributed data solutions, the students in our Big Data Management class, ISA 414, made some predictions using IBM's Watson technology.

Arthur Carvalho, ISA assistant professor, had his class spend the semester collecting, organizing and making sense out of data for various companies. They used the IBM Watson technology - the famous artificial intelligence program that has taken on Jeopardy contestants and which is now being used in fields such as health care to analyze patient data - to accurately describe trends, predict future events and prescribe what these companies should do to garner positive outcomes.

Essentially, they learned their way around big data sets. After all, "big data" is the name of the game in nearly every industry nowadays, and someone has to know how to read it.

All of the groups undertook interesting projects throughout the semester. One of the groups analyzed Facebook data taken from several thousand posts that mentioned the Starbucks brand...

For the complete article [click here](#)

Cybersecurity Symposium Launches Cyber Initiative



To highlight and announce our planned increased focus on Cybersecurity, ISA hosted a Cybersecurity Symposium for a full house of students, faculty and business professionals in Taylor Auditorium on November 9th. The symposium was organized by Dr. Sooun Lee.

James Aramanda, President and CEO of The Clearing House, and John Carlson, Chief of Staff with Financial Services-ISAC, delivered a keynote talk on the State of Opportunity within Cybersecurity. The Keynote was followed by a panel discussion on Cybersecurity Threats and its Impacts. Joining Jim and John on the panel were Dan Kilbourne from the FBI's Cybersecurity unit and Matthew Solomon from the US Treasury Department. A reception followed to allow students and faculty to mingle with our Cyber guests.

This year's symposium is scheduled for October 18 from 4:30-7:00 in Taylor Auditorium. It would be great to see you there.



Program and Curriculum Highlights

When I asked Belinda, who by the way is still the glue that holds this department together, for her summary of events worthy of including in the newsletter, her response was simply..."This was the year of redesign..." Lasts year's newsletter hinted at changes in the works. Most of those are now in place. Here is a summary

NEW ISA MAJOR

The biggest is our new Information Systems and Analytics Major. This major is a combination of our previous Information Systems Major and our Business Analytics Co-major into a single major with two tracks, IS and Analytics. Students must self select into a track. The core of this new program requires all ISA majors to take both database management and programming, currently in Python. The tracks resemble very closely the old IS Major and BA co-major with a few enhancements. The ISA major is officially available for students to declare this fall. For more information see the ISA website

CYBER SECURITY COURSES

One of the course changes for the IS track of the new major was to morph our Data Communications in Business course, ISA 301, into a Business Data Communications and Security course with a significantly increased focus on cybersecurity issues and their impact on business. This revision will be taught for the first time this fall. In the spring we will offer and Advanced Cybersecurity special topics course. We hope this combination will better prepare a subset of our majors with and interest in security for placements in that area.

NEW GEOSPATIAL ANALYTICS TRACK

A new track has been designed for the Analytics co-major in conjunction with Statistics and our newest academic partners in Geography. The track expands upon the current Geographic Information Science Certificate offered by the Department of Geography. It requires foundational data and statistical modeling as well as visualization knowledge in addition to the current certificate.

BUSINESS CORE CHANGES

Exciting changes here. First, ISA faculty operationalized and will be delivered a two credit hour Computational Thinking course that taught all FSB freshmen how to think algorithmically and code simple algorithms in JavaScript. The course was very well received by our freshmen class

The 6 credit hour statistic requirement for all FSB students is in place. This academic year most of the freshmen class took the first course which was taught by Statistics. The second course, Principles of Business Analytics was piloted to 90 students this spring and all sophomores will take it this year.

This summer we redesigned our Introductory IS course in the core to leverage the knowledge and skills, including coding and computational thinking, that FSB students get in the new first year integrated core.

Finally, we designed and will teach next spring, a new course for non-business students, IS and Data Driven Decision Making course. This course is intended to help meet a rapidly growing demand for business courses in non-FSB programs and is also part of a new General Business Minor.

ISA Student Recognition



Best BA Major
Elissa
How



Best IS Major
Andrew
Burkett



Best BA Minor
Irina
Rakhlenko



Best IS Minor
Nicole
Peters

ISA Scholarship Recipients

Cardinal Health



Sarah Armstrong



Sydney Kemp

Dawley



Kathryn Kossler



Joshua Mullins



Greyson Palmieri

EY



Madison Galdes



Kathryn Kossler



Abby Samargya



Beatriz Su



Reid Waddell

KPMG



Kevin Trojak



Megan Usher

ISA Advisory Board



Heather Bonsky



Le Chang



Mackenzie Kingsley



Bailey Zyer

Looking Ahead to 2017

More good things to come...

- Deliver the two course Cyber-security course sequence and continue to flesh out and begin implement our strategy for Cybeseurity curriculum.
- Increase experiential learning opportunities for ISA students
- Mentor our new faculty and hire two more future leaders in the department
- Selectively invest in faculty training and opportunities to expand our knowledge and expertise in IS and Analytics.
- Continue to build strong corporate partnerships that help us be the best at what we do.
- Continue our strong intercurricular partnerships, especially through CADS

Giving Back to ISA

To continue to evolve ISA programs and increase both the quality and quantity of our pipeline of ISA students we now rely on financial support from outside the university for success. To continue growing enrollments and building out top shelf programs, we need your support. Outside gifts go to activities very underfunded by the university and include:

- Faculty training on emerging tools and techniques in both IS and Analytics
- Continuing programs such as speakers and meet & greets which help market our programs to both high school students and Miami underclassmen
- Increasing scholarships available to ISA students
- Curriculum and course development efforts

MAKE A GIFT

When you give to Miami, please consider directing your gifts specifically toward the ISA department. Below is a URL to earmark your Miami gift to ISA online. You may also click on the icon to the left or look for it on the ISA Department web page.

<https://securelb.imodules.com/s/916/16/interior-flah.aspx?sid=916&gid=1&pgid=6010&cid=11236&dids=98&bledit=1>

If you prefer you can mail your gift directly to me at the address at the bottom of the left column. Please make the check payable to Miami University and write Information Systems & Analytics on the memo line.

Thanks in advance for your support. If you have any questions about the department's funding priorities, please contact me directly at 513 529-4835 or benamajh@miamioh.edu.



End Notes

It was another productive year for ISA! We continue to grow and are attracting some of the best students in the FSB into our programs. That is because we have some of the best undergraduate programs in the country. Staying at the top is not easy, but we are committed to pushing the envelope and work hard to stay at the forefront of IS and Analytics education.

I would love to catch up with more of you in the coming year. Don't be strangers. I still love getting emails and calls from you sharing your successes and life experiences.

Any contributions of your Time, Talent, or Treasure (TTT) to help us continue to get better, won't go unnoticed and thank you to all who already contribute.



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