WEBINAR

FULL-TIME MASTER’S IN BUSINESS ANALYTICS
INTRODUCTION

MODERATOR
Jennifer Carter
Director, Recruiting & Admissions

PRESENTER
Sam Burer
Director, Business Analytics Graduate Programs
George Daly Professor of Management Sciences
AGENDA

• Analytics
  • What is it? Why is it so important?
  • What are your career prospects?
  • Why Tippie?

• The Master’s Program
  • Overview
  • Details
  • Example courses and projects

• Q&A
POLL: USING DATA TODAY
DESCRIPTIVE ANALYTICS
DESCRIPTIVE ANALYTICS
DESCRIPTIVE ANALYTICS

Movie Ticket Sales Compared to Number of Screens and Decade of Release

Gross Ticket Sales Per Screen (in 2015 Dollars)

Number of Screens

Decade of Movie Release
- 1980s
- 1990s
- 2000s
- 2010s

Ticket Sales (in millions of 2015 Dollars)
- $200
- $400
- $600
- $800
PREDICTIVE ANALYTICS
PREDICTIVE ANALYTICS

• Target, Wellmark, Mastercard, Netflix, Match.com, Amazon, Red Cross...

• What product will a customer want next week?
• Will a patient return to the hospital for the same medical problem?
• Is this transaction fraudulent?
• Which movie will she like?
• Is Mr. Smith willing to donate blood?
PREDICTIVE ANALYTICS

• Predict home values based on real estate data

• In Iowa City, there are two high schools (City and West)

• Being assigned to West adds about 7% to the value of a home
PRESCRIPTIVE ANALYTICS
PRESCRIPTIVE ANALYTICS

Given predictions about the future, how do we use limited resources to achieve an **optimal** outcome?
Where should Trader Joe’s open its next store?
CAREER PROSPECTS
ANALYTICS AT WORK

• Gallup poll
  • 69% of U.S. employers say data-science skills ensure preference for jobs
  • But just 23% of graduates have these skills

• PwC report
  • 2.7 million U.S. job postings for data science and analytics roles in 2020
SALARIES IN DATA SCIENCE

• Median early-career salary for Bachelor’s (U.S.)
  • Industrial engineering = $66,000
  • CS and Mathematics = $63,000
  • Actuarial science = $61,000
  • Econ, Statistics, and Info Sys = $60,000

• Median starting salary for Master of Analytics (U.S., Midwest region)
  $87,500

Sources: PayScale.com, GMAC Corporate Recruiters Survey
FROM OUR STUDENTS

• “I was able to use knowledge gained from the program to do things in my job that no one had done before. From that, I was promoted, and changed careers from Marketing to full Business Intelligence. I am soon to be promoted again, **increasing my income by a total of 80%** or so. Plus, I'm challenged by new things, able to guide strategy, and generally happy with my job/career.”

—Steven, *current master’s student*
FROM OUR STUDENTS

• “R programming really turned out to be a feather in my cap. The class was valuable for many reasons, but I didn't know whether I'd ever encounter it again. Sure enough, I did and I'm using it on a high-profile project at work.”

—Alison, current part-time master’s student
TIPPIE’S MSBA
THE BASICS

- Three-semester program
- Full-time, Monday through Thursday
- Iowa City, Iowa campus
OUR APPROACH

• You will learn and experience the full analytics roadmap
  • Descriptive
  • Predictive
  • *Prescriptive*
  • Plus: *Critical communication skills*
RESUME BUILDER: THE INTERNSHIP

• Summer internship
  • Between spring and second fall semester

• Hands-on experience to grow your resume
COURSEWORK

Core
- Business Analytics
- Data Programming in R
- Data Management and Visual Analytics
- Advanced Analytics
- Data Science
- Business Communication

Elective
- Big Data Management
- Text Analytics
- Information Visualization
- Applied Optimization
- Financial Analytics
- Analytics Experience
- And more
WE DID ANALYTICS
BEFORE IT WAS COOL
OUR REPUTATION

• Data analytics has been a focus of Tippie faculty for over 30 years—long before “Big Data” became a buzzword

• Ranked in the top 25 in the U.S.
  • Data analytics master’s programs, MastersInDataScience.org

• Faculty are leaders in the premiere analytics professional society, INFORMS
EXPERTISE: A SAMPLING

- Machine Learning
- Optimization
- Data Mining
- Web Mining & Business Intelligence
- Social Network Analysis
- Spatio-temporal Databases
CAREER SUPPORT
CAREER SEARCH SUPPORT

• Graduate career services team to support you in:
  • Creating a resume that sings your praises
  • Honing your job interview skills
  • Gaining the specific skills needed to excel in business analytics interviews

• Career Services team
  • Relationships with hiring companies
  • Promote students to hiring managers
  • Connect students with Tippie alumni
  • Guide you to a job that fits your skills and goals
STEM-DESIGNATED PROGRAM

• We are a designated STEM (science, technology, engineering & math) program

• STEM Optional Practical Training (OPT) program
  • Stay and work in the U.S. two years longer without employer sponsorship
  • Up to 2 years longer than typical OPT
REAL WORLD, REAL WORK
OUTSIDE THE CLASSROOM

- Business Analytics Case Competition
- Additional competitions, workshops
A student team evaluated over 100,000 data points to build predictive models that help university admissions teams identify the best applicants.

- **Tools**: R, RStudio, Rattle, Tableau
- **Techniques**: Decision Trees, SVM, Logistic Regression, Lift Charts
The Tippie Analytics Cooperative worked with millions of data records provided by Paperless in order to reveal important indicators of fraudulent online donations.

- **Tools**: R, RStudio, Rattle
- **Techniques**: CRISP-DM, Decision Trees
MORE PROJECTS

Principal

RUFFALO NOEL LEVITZ

Kum & Go

Pella

UNIVERSITY OF IOWA HOSPITALS & CLINICS
University of Iowa Health Care

TRANSAMERICA
GETTING IN
GETTING IN

• Minimum requirements
  • Bachelor’s with 3.0 minimum GPA
  • GRE or GMAT

• Checklist
  • Resume
  • Transcripts (copies okay)
  • Test score report (copies okay)
  • TOEFL/IELTS (international only)
  • Statement of purpose
APPLICATION DEADLINES

• Apply early—financial aid decreases after every deadline

• **Priority deadline**  March 15; passed
• International  May 1
• Domestic  June 1
TUITION & FEES

• Total tuition & fees (all 3 semesters)
  • Iowa resident ≈ $30,800
  • Non-resident ≈ $49,700