

Andy Alexander, Ph.D.

andyalexander98@gmail.com
www.linkedin.com/in/andyalexanderphd/
Zionsville, IN 46077 (317) 696-4511

EDUCATION

Purdue University, West Lafayette, IN
Krannert School of Management
Ph.D. Quantitative Methods

Dissertation Title: "*Maintenance Outsourcing: Sustaining System Coordination under Symmetric and Asymmetric Information*"

Indiana University, Bloomington, IN
Kelley School of Business
M.B.A. Entrepreneurship, M.B.A. Information Systems Strategy

Indiana University, Bloomington, IN
Kelley School of Business
B.S. Computer Information Systems, B.S. Finance

EXPERIENCE

Purdue University, West Lafayette, IN 2017 – Current
Lecturer & Course Coordinator, Quantitative Methods Area (QM), Krannert School of Management

Full-time Lecturer and Course Coordinator for MGMT 306: Management Science and MGMT 670: Business Analytics in the Krannert online MBA Program (oMBA).

- Three-time winner of Krannert Outstanding Undergraduate Teacher Award (2018, 2019, 2020)
- Charged with managing and coordinating internal resources (additional professor, operations support, teaching assistant, and graders) to instruct over 200 students per semester across multiple sections of in-person and online modalities.
- Changed curriculum, course pacing, and deliverables to reflect more hands on quantitative work. Student learning and evaluations both increased.
- Advise students on full-time and internship interview strategies, networking and career planning, major/minor/concentration selection, and resume writing tips. Help students negotiate job offers, increasing total compensation for students each semester by thousands of dollars.
- Additional classes include business statistics, business analytics, and advanced spreadsheet design.

Ball State University, Muncie, IN 2015 – 2016
Instructor and Business Analytics Head Faculty, Department of Information Systems and Operations Management (ISOM)

Full-time instructor and head of Business Analytics (BA) program. Responsibilities include:

- Authored new curriculum: Introduction to Business Analytics (optimization, management science), Data Mining (R programming, machine learning), Data Warehouse & Business Intelligence (Hadoop, Spark), and Managing Big Data (keystone project).
 - Advertised new degree track to students and worked with student advising services to create a four-year graduation plan for business and non-business students.
 - Formed an Advisory Board of executives, managers, and corporate leaders for BA program guidance and stewardship.
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Purdue University, West Lafayette, IN 2009 – 2014

Instructor/Graduate Assistant, Krannert School of Management

Doctoral student in Quantitative Methods Area with responsibilities that included course instruction, classroom and lab assistance, and research.

- Three-time winner of the *Krannert Certificate for Distinguished Teaching Award*, the highest teaching award for graduate instructors.
- Presenting Author, "Manufacturer's Profit in Maintenance Outsourcing with Menu Contract", INFORMS 2013
- Ross Fellowship Recipient, Krannert School of Management
- Krannert Doctoral Student Association (KDSA) Vice President of Philanthropy

Protiviti, Chicago, IL 2006 – 2009

Senior Consultant, Information Security

IT Security specialist for an international risk consultant firm. Managed and contributed to broad array of projects in security, privacy, and IT audit. Key projects included:

- Assembled and managed a ten person audit team dedicated to reviewing a highly decentralized application access administration environment for one of the largest banks in the world. Completed client's highest profile audit on time on an expedited schedule.
- Implemented a global vulnerability management solution, which reduced global infrastructure footprint over five countries and provided scalable efficiencies.
- Other projects included: External and Internal Penetration Testing, Identity Management, HIPAA Privacy Assessment and Policy Review, Vendor Management Privacy Program Review, and Configuration Management Audit.

Indiana University (IUPUI), Indianapolis, IN 2002 – 2004

Systems Coordinator, UITS Support Center

IT manager, security leader and trainer, and network specialist.

- Managed tier one support call center employees, increasing call productivity through schedule optimization, training, and knowledge sharing.
- Provided tier two technical support and managed departmental network security controls and software configurations.

INDUSTRY PROJECTS

- *Machine Learning and Statistical Consultant* – Expert consultant for LHP Engineering Solutions. Past project for largest client (Cummins, Inc.) included North American Net Promoter Score (NPS) data analysis to improve customer approval and retention rate. Through executive leadership support, the statistical insights and strategic suggestions were then rolled out worldwide. Second project comprised of consolidating and analyzing engine diagnostic output of over 1,000 variables to identify cause of failure error codes. Results and analytical approach rolled out to other projects within Cummins.
 - *Co-founder and CFO*, TripTwos – A startup gaming company focused on improving online poker play. Created software that used statistical simulations, machine learning, and database tracking of opponents to recommended actions for Limit Texas Hold'em poker players. Sold company to largest client.
 - *Director of Quantitative Analysis*, Daily Fantasy Lineup – An online fantasy football company dedicated to accurately predicting successful team rosters for daily contests using a customizable evolutionary algorithm written in Python.
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RESEARCH

Research interests include data science, big data, operations research, sports analytics, and optimization. The economic game theory and operations research theoretical work in my dissertation was supported with analytical results generated from custom MATLAB code.

- Alexander, A., Li, Y., and Plante, R. (2017). "Sustaining system coordination in outsourcing the maintenance function of a process having a linear failure rate". *IIE Transactions*, 49(5), 544-552.
- "Comparative Study of Two Menus of Contracts for Outsourcing the Maintenance Function of a Process Having a Linear Failure Rate", submitted February 2020 to *Naval Research Logistics*.

ONLINE TEACHING EXPERIENCE

- Founding Advisor for the Yellowdig Academic Advisory Council (YAAC) 2020
- Purdue University, Instructor
 - MGMT 670: Business Analytics 2020
- Benedictine University, Instructor 2009 – 2010
 - MBA 651: Financial Accounting
 - MBA 683: Project Management
- Subject Matter Expert and Instructor, Rasmussen College 2010
 - N253: Managing Information Security

BACKGROUND, SKILLS, CERTIFICATIONS & AWARDS

- Proficient in R, MATLAB, SAS, Advanced MS Excel. Experience in Python, Tableau, and Minitab
 - Judge, 2016, 2017, 2018 Baseball Hack Days – Chicago
 - CISSP – Certified Information Systems Security Professional (2008-2011)
 - CISA – Certified Information Systems Auditor (2008-2011)
 - CIPP – Certified Information Privacy Professional (2008-2011)
 - Faculty-Selected Member, Entrepreneurship Management Academy, Indiana University
 - Kelley School of Business Merit Scholarship Recipient, Indiana University
 - President, Kappa Sigma Fraternity – Beta Theta Chapter, Indiana University
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