
Joe Brodnax, CAP-X®
Management Science
College of Business
East Texas A&M University
Department: 903.468.8191
Office: BA 315C
Joe.Brodnax@etamu.edu

EDUCATION

M.B.A., Emphasis: Management Science
McCombs School of Business
The University of Texas at Austin, Austin TX

M.S., Computer Science
The University of Texas at Tyler, Tyler TX

B.S., Computer Science
The University of Texas at Tyler, Tyler TX

B.S., Economics
Southern Methodist University, Dallas TX

Professional Certifications

INFORMS: Certified Analytics Professional - Expert (CAP-X®), 2019 (recertified: 2022, 2025)

Product Certifications / Badges

Six Sigma Specialist, 2003
SAS: Applied Analytics, 2020
LinkedIn: SQL for Data Analysis, 2023
LinkedIn: Predictive Analytics Essential Training: Data Mining, 2024
LinkedIn: Introduction to Quantum Computing, 2024

ACADEMIC APPOINTMENTS

2017 - PRESENT: EAST TEXAS A&M UNIVERSITY, Commerce TX
Instructor of Management Science

1997 - 2000: THE UNIVERSITY OF TEXAS AT DALLAS, Richardson TX
Adjunct Lecturer of Computer Science & Engineering

1982 - 1994: THE UNIVERSITY OF TEXAS AT TYLER, Tyler TX
Adjunct Lecturer of Computer Science

INDUSTRY EXPERIENCE

August 1994 - December 2016 (Retired): RAYTHEON (formerly E-Systems Inc.) Richardson, TX

January 2015 – December 2016: Raytheon, Intelligence, Information and Services (IIS) Richardson, TX ||
(Senior Principal Engineer) Product Group Manager / Technical Subcontract Manager / Engineering Manager. Managed Product Group Development and functional support for key proprietary Government customers. Management support for under-performing programs.

May 2006 – January 2015: Raytheon, Intelligence, Information and Services (IIS) Garland, TX || (Senior Principal Engineer) Engineering Manager. Technical Project Manager for Research & Development (R&D) and Product Development for key proprietary Government customer. Received distinguished technical honors associated with R&D that led to key system design and functionality derived using high performance analytics.

July 2002 – May 2006: Raytheon, Intelligence, Information and Services (IIS) Garland, TX || (Principal Engineer) Applications & Analysis IPT Lead

August 2000 – July 2002: Raytheon, Intelligence, Information and Services (IIS) Garland, TX || (Senior Software Engineer) Commercial Imagery Initiative (CII) Development Lead

August 1999 – August 2000: Raytheon, Intelligence, Information and Services (IIS) Garland, TX || (Senior Software Engineer) Lead Product Engineer

August 1994 – August 1999: Raytheon, Intelligence, Information and Services (IIS) Garland, TX || (Senior Software Engineer) Technical Lead / Senior Software-Architecture Engineer

1980 - 1994: PRIVATE INDUSTRY OPERATIONS & ENERGY PRODUCTION ANALYSIS, Tyler TX
Principal

1978 - 1980: TEXAS OIL & GAS CORP, Dallas TX
Systems Analyst

INTELLECTUAL CONTRIBUTIONS

Refereed Proceedings

Burch, G., Brodnax, J., Burch, J., & Drewes, P. (in press, 2019). Developing a Business Analytics Curriculum for all Undergraduate Business Students. Southwest Academy of Management.

Doty, M., Sewell, S., & Brodnax, J. (2017). Real Estate Sales by the Numbers: Accuracy Issues for Marketing Analytics. *Academy of Business Research*

Presentations of Non-Refereed Papers

Brodnax, J. (2015-2016, September). *State Driven Dynamic Programming: Determining the Relative Value of Information Needs*. Invited presentation at Science of Multi-Intelligence (SOMI), Chantilly, Virginia. *Research*

Burch, G. & Brodnax, J. (2019-2020). *Developing an Undergraduate Business Analytics Curriculum*. Invited presentation at Southwest Academy of Management, San Antonio, Texas.

HONORS & AWARDS

Raytheon Intelligence and Information Systems Excellence in Engineering and Technology Award (2008)
Director's Team Award, NRO (2007)

Beta Gamma Sigma Honor Society (Business - The University of Texas at Austin)

Epsilon Delta Pi Honor Society (Computer Sciences)

Alpha Chi National Honor Society (General)

Phi Theta Kappa (General)

TEACHING

Courses Taught

East Texas A&M University, Commerce TX

BUSA 1305: Business Computing Systems (U)

BUSA 326: Data & Information Management (U)

BUSA 379: Business Process Management & ERP Systems (U)

BUSA 421: Data Mining (U)

BUSA 424: Business Analytics Modeling (U)

BUSA 428: Project Management (U)

The University of Texas at Dallas, Richardson TX

CS 1315: Computer Science I / Computer Applications (U)

CS 2325: Computer Science II / Computer Organization & Machine Language (U)

CS 5330: Computer Organization & Machine Language (G)

EE 6307: Fault Tolerant Digital Systems (G)

The University of Texas at Tyler, Tyler TX

COSC 3302: Structured Computer Applications (U)

COSC 3309: Information Systems (U)

COSC 3311: Science / Engineering Applications (U)

COSC 3312: Computer Organization & Machine Language (U)

COSC 4321: Data Structures (U)

COSC 4330: Computer Architecture (U)

COSC 5306: Introduction to Computer Science – Non-Majors (G)

Executive / Professional Education Courses Taught

2018-2019 - Business Analytics & Big Data: Deriving Insights for Decision Making. Industry Presentation as part of the Department of Marketing & Business Analytics: "Analytics Workshop Series"

Teaching Activities Associated with Continuous Improvement

2018-2020 - Faculty Sponsor International Institute of Business Analysis - Student Organization. Faculty sponsor for new student organization. Other Teaching Activities.

UNIVERSITY SERVICE

East Texas A&M University

University Assignment

Member:

2018-2019: University Course Sync Committee (MATH/ECON/BUSA)

2017-2018: University Early Intervention Committee

College Assignment

Chair:

2020-2021 – 2021-2022 – 2022-2023 – 2023-2024 – 2024-2025: College of Business Curriculum Committee

Member:

2021-2022 – 2024-2025: College of Business Strategic Planning Committee

Member:

2017-2018 – 2019-2020: College of Business Curriculum Committee

Department Assignment

Chair:

2023-2024: Department Faculty Search Committee (Business Analytics Position)

Member:

2016-2017 – 2020-2021 – 2021-2022 – 2022-2023 – 2023-2024: Department Scholarship Committee

2020-2021: Department Chair Search Committee

2024-2025: Department Faculty Search Committee (Business Analytics Position)

2019-2020: Department Faculty Search Committee (Business Analytics Position)

2017-2018: Department Faculty Search Committee (Business Analytics Position)

2017-2018: Department Strategic Planning Committee

Service to the Profession

Academic Conference: Moderator / Discussant:

2019-2020: AACSB Co-Lab Connecting Industry with Business Schools 2019, Drexel University, Philadelphia PA; "University/Industry CO-OP: Preparing Students for the App Economy"

Invited Lecture:

2019-2020: AACSB Data Analytics Summit, Georgia Tech, Atlanta GA; "Brighter Future for Analytics: Unique University Outlook with Global Reach"; Myers, Brodnax, Drewes

Committee/Task Force:

2023-2024: INFORMS: Certification Committee (International). INFORMS: (Invited) CAP certification professional evaluator (domain 4 method/modeling expert exam reviewer).

Professional Memberships

The Institute for Operations Research and the Management Sciences (INFORMS)

Professional Development

DS: Research-Related Conference/Seminar

2019-2020: INFORMS 2020 Business Analytics Virtual Conference.

2020-2021: INFORMS 2021 Business Analytics Virtual Conference.

2022-2023: IIBA 2023 Business Analytics Virtual Conference.

2022-2023: Gurobi 2023 Digital Virtual Optimization Series.

2024-2025: SAS Innovate 2024 Conference.

Update: October 2025