

Danny J. O’Leary  
Curriculum Vitae

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## EDUCATION

### Ongoing

2022 Ph.D., Industrial and Systems Engineering, Auburn University (4.0 GPA, A.B.D.)  
Advised by Dr. John Evans, Department Chair

### Completed

2021 Graduate Certificate, Modeling for Data Analytics and Operations (4.0 GPA)  
2020 Master of Engineering Management, Systems Engineering, Auburn University (4.0 GPA)  
1992 Bachelor of Science, Mechanical Engineering, Auburn University

## PUBLICATIONS

### Web-Based Publications

2020 Project / Research Blog, *Antisimplistic*: [aub.ie/BlogPortfolioLinks](http://aub.ie/BlogPortfolioLinks)

### Other Publications

2009 US Patent 7,497,779, *Video Game Including Time Dilation Effect*, Inventor  
1997 Elliott, S. D. (1996). *Inside 3D Studio Max*. New Riders Pub., Contributing Author

## SELECTED AWARDS AND HONORS

2021 Inducted into Phi Kappa Phi honor society  
2020 Semi-Finalist, Simio Student Simulation Competition, May (9 of 333)  
2020 Inducted into Tau Beta Pi, Epsilon Mu Eta and Alpha Pi Mu honor societies  
2020 Outstanding Master’s Student, Auburn University Graduate School (13 of 2,620)  
2019 Outstanding Master’s Student, Industrial and Systems Engineering (1 of 79)  
2019 3<sup>rd</sup> Place, Tiger Cage Business Idea Contest, \$4,000  
2015 Electronics Entertainment Expo (E3), 15 awards including three Best of Show  
2012 Profiled, Auburn Engineering Magazine, “It’s My Job”  
2011 William C. Schwartz Industry Innovation Award, Metro Orlando EDC  
1998 PlayStation “Shooter of the Year” award from Sony Interactive Entertainment

## GRANTS AND FELLOWSHIPS

- 2020 MegaGrant, Epic Games, *Backster 2.0: Next Gen. Visual Tool for Ergonomic Assessment*  
\$25,000 awarded August 2020 to Dr. Richard Sesek (PI), Auburn University  
Identified funding source, co-drafted the proposal, assisted with project strategy
- 2020 MegaGrant, Epic Games, *AR/VR-Based Training in Lean Manufacturing*  
\$25,000 awarded May 2020 to Dr. Konstantinos Mykoniatis (PI), Auburn University  
Identified funding source, facilitated discussions, and contributed to proposal

## CONFERENCE PARTICIPATION

- 2015 Moderator and Speaker, “Entertainment Panel,” Florida Simulation Summit, National Center for Simulation, September 16<sup>th</sup>
- 2013 Speaker, “Independent Game Development,” GameTech Conference, National Center for Simulation, April 17<sup>th</sup>

## CAMPUS TALKS

- 2021 *Data Science Career Roundtable*  
Recruited six participating companies from a variety of industries, including SAIC, Shipt, Encompass Health, and IERUS; organized, hosted, promoted and moderated, March 30
- 2020 *AI and Machine Learning Concepts*  
Presented to the Data Science Society of Auburn, November 9
- 2020 *Real-Time Visualization and the Epic MegaGrant Program*  
Presented to Industrial and Systems Engineering Faculty, July 13, and again to the members of its Advanced Manufacturing Research Group, July 28

## TEACHING EXPERIENCE

<b>Instructor, Auburn University</b>		<b>2021 – Present</b>
Department of Industrial and Systems Engineering (ISE)		
ENGR 3520	Integrating Business & Engineering Theories with Practice*	Fall 2021
ENGR 3560	Leadership for Business and Engineers*	Fall 2021
INSY 6600	Manufacturing and Production Economics†	Summer 2021
<b>Instructor, National Science Foundation’s Innovation Corps</b>		<b>2021 – Present</b>
NSF I-Corps South Node at the Georgia Institute of Technology		
I-Corps South Regional Program, University of Alabama at Birmingham		Spring 2021

**Graduate Teaching Assistant, Auburn University**  
Department of Industrial and Systems Engineering

**2018 – 2021**

Instructor of Record

ENGR 3510	Introduction to Business & Engineering*	Spring 2021
ENGR 3520	Integrating Business & Engineering Theories with Practice*	Fall 2020
ENGR 3560	Leadership for Business and Engineers*	Fall 2020
<i>Overall average course evaluation 5.5 / 6.0</i>		

Class Assistant / Lecturer

INSY 7740	Product Launch, Manufacturing, and Delivery <sup>††</sup>	Spring 2021
INSY 7730	Product Design, Development, and Test <sup>††</sup>	Fall 2020
INSY 6600	Manufacturing and Production Economics <sup>†</sup>	Spring, Summer 2020 – 2021
ENGR 3510	Introduction to Business and Engineering*	Spring 2019 – 2020
ENGR 3520	Integrating Business & Engineering Theories with Practice*	Fall 2018 – 2019
ENGR 3560	Leadership for Business and Engineers*	Fall 2018 – 2019

\*Undergraduate-level, <sup>†</sup>Combined graduate- and undergraduate-level, <sup>††</sup>Graduate-level

**RESEARCH EXPERIENCE**

**Ph.D. Dissertation, Auburn University**

**2020 – Present**

Department of Industrial and Systems Engineering (ISE)

Dissertation Topic Area: Creating best in class curriculum for innovative product developers

**Graduate Research Assistant, Auburn University**

**2019 – Present**

Thomas Walter Center for Technology Management (TWC)

Collaborate with TWC's Director to manage, administer, and support programs related to product development, innovation, and engineering management, especially in high-tech industry.

- Redesigned curriculum for three classes in Business-Engineering-Technology Minor and integrated hands-on project work where students earn five makerspace certifications
- Benchmark TWC programs against 50+ relevant offerings at peer / aspirant institutions
- Prepared for and conducted on-site interviews at UF, UCF, GA Tech, NCSU, and Duke
- Created background briefs for visits to the Universities of Michigan and Texas (Austin)
- Interface with regional directors of National Science Foundation's I-Corps program and the Department of Defense's National Security Innovation Network
- Developed goals and timeline for the College of Engineering's Product Innovation Institute, the Dean's five-year, \$30M vision pitched to high-level donors
- Contributed to DHS proposal for Exec MBA focused on Security Technology Transition
- Identified and promoted Epic MegaGrant as valuable new research funding pool (\$100M)
- Drafted successful partnering proposal for Georgia Tech's 2020 I-Corps NSF solicitation
- Co-drafted TWC proposal for AU Mission Enhancement Fund (\$300K)
- Liaise with Dr. Jeff DeGraff (University of Michigan) and directors of the USAF's Air University (Montgomery, AL) in support of their collaborative innovation initiatives

## **Master of Engineering Management Capstone Project, Auburn University**

**2019**

Department of Industrial and Systems Engineering

Supervised machine learning methods using Python and Scikit-Learn

## **SERVICE TO PROFESSION**

Lecturer, Advisor, and Student Team Judge, Florida Interactive Academy at UCF (2004 – 2016)

Guest Speaker and Accreditation Stakeholder, Full Sail University (1998 – 2020)

## **UNIVERSITY SERVICE**

Director of Career Programming, Data Science Society of Auburn (2020 – Present)

Founder & President, Epsilon Mu Eta, Auburn University Chapter (June 2020 – Present)

Advisor, BlueprintPal student team, Tiger Cage Business Idea Contest Finalist (2019 – 2020)

Advisor, SafeBoard student team, Tiger Cage Business Idea Contest Semifinalist (2019 – 2020)

ISE Department Ambassador, Council of Engineering Graduate Students (2019 – 2020)

Mentor and Guest Speaker, TigerDev student organization (2018 – 2020)

Volunteer, Southeastern Raptor Center, College of Veterinary Medicine (2017 – 2018)

## **ADDITIONAL TRAINING**

2020 NSF I-Corps South Instructor Academy, Georgia Institute of Technology, May 13-15

## **RELATED PROFESSIONAL SKILLS**

Python, R, MariaDB / SQL, Scikit-Learn, MS VBA, @Risk, Simio, AMPL, Unreal Engine

## **NONACADEMIC WORK**

2020 Founder and President, GUNSTRUCTION, Inc. (2012 – Present)

Direct a distributed team of 3-5 experts in developing and marketing an innovative 3D product configurator for mobile, tablet, and web; top 200 Entertainment app for 5+ years

- Establish, sustain quality standard – average 4-star rating on iOS, 600+ reviews
- Grow market and engagement – 500K+ downloads, 8M+ interactions/month
- Build and nurture partnerships – nearly 150 licensed manufacturers and retailers
- Developed, maintain custom analytics system – delivers custom monthly reports

- 2016 Co-Founder and CEO, n-Space, Inc. (1994 – 2016)  
Led, managed, grew one of the world's most resilient independent game development studios – 45 games on 12 platforms with 20+ partners, selling 10+ million units worldwide
- Created award-winning studio capable of adapting to wide-ranging market demands, delivered games for various demographics in 9 genres, budgets \$300K to \$12M+
  - Oversaw production, defined methods, directed artists, engineers, designers, and production managers over 4 generations of console hardware, 6 game engines
  - Directed hundreds of concepts and business proposals, pitched to publishers and investors, negotiated deals, secured contracts with up to 20 other proposals
  - Established n-Space as dependable, high-value partner, on-time / budget > 90%, building long-term relationships with partners including Activision, Nintendo, Disney
  - Built and protected a tight-knit culture with average tenure over 7 years (2-3x norm) in an industry with highest turnover rate in technology (15.5%)
  - Led through adversity, including 2008-9: 2x growth in 9 months (peak of 122 staff on 7 teams), lost CEO to cancer, recession, aborted acquisition, 60% layoff, rebuilding
- 1994 Training Exercise Designer, GE Aerospace (1993 – 1994)  
Authored training scenarios, built 3D models, visual effects as contract employee to the Simulation and Training group, then a world leader in real-time 3D rendering
- Member of core development team for “Desert Tank” arcade game with SEGA Japan
  - Parlayed that experience into meetings with Sony, funding the birth of n-Space

## **SELECTED NONACADEMIC PROFESSIONAL SERVICE**

Advisor, Orlando Mayor Buddy Dyer, Economic Development Commission Leadership Mission,  
Cite de Multimedia, Montreal research trip for Orlando's Creative Village (2008)

## **TEACHING AREAS**

Innovation, Entrepreneurship, Customer Discovery, Leadership  
Product Design and Development, Prototyping  
Engineering Economics, Probability & Statistics  
Python, R, and Software Carpentry for Scientific Computing  
Data Science, Analytics, Machine Learning  
Simulation, Visualization

## **PROFESSIONAL MEMBERSHIPS**

Project Management Institute (PMI)  
International Council on Systems Engineering (INCOSE)  
The Institute for Operations Research and the Management Sciences (INFORMS)  
American Society for Engineering Management (ASEM)  
Institute of Industrial and Systems Engineers (IISE)  
Association for Computing Machinery (ACM)

## **ACADEMIC REFERENCES**

John Evans, Ph.D.  
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## **PROFESSIONAL REFERENCES**

Available on request.