**Connor P. Jennings**

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**Education**

2011 – Present **Iowa State University of Science and Technology** Ames, IA

*M.S. Industrial Engineering ’15 (3.54 GPA)*

*Thesis Title: Obsolescence Risk Forecasting and Life Cycle Forecasting using Machine Learning*

*B.S. Industrial and Manufacturing Systems Engineering ’14 (3.10 GPA)*

*B.S. Economics ’14 (3.10 GPA)*

2013-2014 **Abu Dhabi Department of Economic Development** Abu Dhabi, UAE

*Study Abroad – Studied the UAE economy and its challenges*

**Work Experience**

2013-Present **The Center for E-Design – Researcher** Ames, IA

* Support business decision processes by modeling cost projections and other outcomes utilizing Monte Carlo simulation designed and implemented as an Excel add-on.
* Predict obsolescence of components using machine learning algorithms
* Partner with companies in industry through The Center for E-Design

2014 **NewLink Genetics – Financial Planning and Analysis Intern** Ames, IA

* Evaluated investment bank financial models using deconstruction techniques
* Assessed value of products’ pre-market launch by building hybrid models for in house review
* Supported executive business intelligence distribution using VBA reporting tools to automatically update and email reports

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| **Consulting** | **Business Challenge** | **Engineered Solution** | **Outcome** |
| ***2015 Katalyst Surgical*** | Ineffective process for tracking individual sales people | Designed VBA macros to automate reporting within Excel | Reduce reporting admin time from 2 hours to 15 seconds. |
| ***2014 Hy-Vee Inc.*** | Inventory control | Developed a metric for analysis of inventory levels and included lead-time variations | Exposed $1.6 million worth of excess inventory or 18% of the warehouse and eliminated need for an additional warehouse. |
| ***2014 Engineering Career Services at ISU*** | Visually display historical employment data | Created an R Shiny application allowing users to control an interactive map that filters data based on location, major, and degree level and display job title and employer. | Placed in top 6 in Cyhack Hackathon and was hired by the Engineering Career Services to further develop the app. |
| ***2014 Amcor Rigid Plastics*** | Procedure to measure thin invisible glass fillings in bottle during manufacturing | Developed a method to quantify the precision added in the additional step to complete measurement | Statistically proved the addition step added no precision in the process and saved them more than $50,000. |
| ***2013 Department of Transportation*** | Visually depict patterns of road usage | Using survey data to create a map to enable DOT employees to visual patterns of road use | Created a method to better select pavement type based on speed limits and traffic patterns. |

**Computer Skills**

* Microsoft Products: Word, PowerPoint, Excel, Access, Visual Studio
* Programming Languages: R, VBA, and Visual Basic.NET
* Web Programming Languages: HTML, CSS, Javascript, PHP and OWL
* Statistical Tools: JMP and RStudio

**Publications**

Jennings, C., Wu, D. and Terpenny, J., “Obsolescence Risk Forecasting and Life Cycle Forecasting using Machine Learning,” (Working Journal Paper)

Jennings, C., Wu, D. and Terpenny, J., “Obsolescence Risk Forecasting using Machine Learning,” Diminishing Manufacturing Sources and Material Shortages (DMSMS) Conference 2015. (Abstract Submitted)

Jennings, C. and Terpenny, J., “Taxonomy of Factors for Lifetime Buy,” 2015 Industrial and Systems Engineering Research Conference (ISERC), Nashville, Tennessee, May 30-June 2, 2015 (invited).

**Teaching and Tutoring**

2012-2015 **Iowa State University: Department of Economics and Agricultural Business** Ames, IA

*Help Room TA*: Responsible for tutoring Intro to Macro and Micro Economics, Intermediate Micro Economics, Managerial Economics, International Trade, International Finance, Game Theory, Econometrics, and Business Statistics.

*Introduction to Agricultural Markets TA*: Proctored exams and held weekly office hours to help students with Excel-based homework assignments.

2012 **Iowa State University: Academic Success Center** Ames, IA

Lead tutoring sessions for groups of 2-5 students that covered Information Engineering, Intermediate Micro Economics (Tutor of the Month - Oct. 2012), and Introduction to Micro Economics.

**Awards and Honors**

* Alpha Pi Mu – Industrial Engineering Honor Society (2014)
* Second Place Award for IMSE Senior Design Competition (2014)
* Capital One SmallBizDev Hackathon NY – Top 20 Finalist (2014)
* First Place Award for Excellence in Statistical Quality Assurance (2014)
* CyHack - Iowa State Hackathon - Top 6 Finalist (2014)
* McIlrath Emerging Leadership Scholar (2013)
* Elmer Kaser Sophomore Award (2013)
* **Millard R. "Spike" Kratochvil Freshman Award (2012)**
* President’s Award for Competitive Excellence Scholar (2011-2015)

**Service**

2014-Present **Tau Kappa Epsilon - Graduate Advisor**

Work with undergraduate members to create leadership development and grade improvement programs. Since implementing these programs, 100% of members are active in clubs on campus and 76% hold leadership roles in those clubs. The average GPA increased 0.2 on a 4.0 scale and has broken the 100-year house record GPA.

2013-2015 **The Millard R. “Spike” Kratochvil Educational Fund – Committee Member**

The Kratocvil Educational Fund awards undergraduates for their achievements. The fund now oversees more than $1M and awards 50 scholarships annually. As a committee member, I was one of ten members tasked with selecting scholarship winners.

2014 **Engineering Fee Task Force – Member**

The Engineering Fee Task Force allocates the funds collected from Iowa State students’ engineering fees. The task force administrated the creation of two computer labs, improved Wi-Fi connectivity, and funded other technical improvements around campus.

**Extracurricular Activities**

2014 Team Iowa Analytics – Machine Learning and Data Mining: Data Specialist

2011 – 2014 Sales Engineering Club: President and Treasurer

2011 – 2014 Tau Kappa Epsilon Fraternity: Head of Scholarship and Head of Recruitment

2011 – 2013 Iowa State Lacrosse Club