

PAMELA MARTINEZ VILLARREAL

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EDUCATION

Masters of Science in Engineering - Industrial & Operations Engineering **Ann Arbor, MI**
University of Michigan, Ann Arbor (U of M) Dec. 2015
Concentration: Healthcare Engineering and Patient Safety (“HEPS”) GPA - 3.44/4.00

Bachelors of Science in Industrial Engineering **El Paso, TX**
The University of Texas at El Paso (UTEP) May 2014
Honors Degree Completion, Magna Cum Laude, Outstanding Senior Award GPA - 3.87/4.00

EXPERIENCE

Graduate Student Research Assistant **Ann Arbor, MI**
Center of Healthcare Engineering and Patient Safety (CHEPS) Sept. 2014 - Present

- Coordinate an interdisciplinary team of 20+ students and professionals on projects that improve patient waiting time and care delivery at the University of Michigan’s Comprehensive Cancer Center (UMCC)
- Simulate the work and patient flow of the UMCC phlebotomy area to streamline the process
- Design simulation games to raise awareness among hospital leadership and staff for the use of data and probability theory
- Collaborate in the design of a decision support tool for the efficient preparation of “make-ahead” chemotherapy drugs
- HSPI Poster Session - People's Choice Competition Award: “Improving Patient Flow in an Outpatient Infusion Center”

Project Manager Student Assistant **Ann Arbor, MI**
Project Management Office at UMCC Jan. 2015 - Present

- Analyze electronic health records (HER) data using Excel macros and statistical analysis to identify and report trends related to scheduled patients and their characteristics, wait times, pharmacy throughput, and utilization of infusion areas to guide continuous improvement efforts

Hospital Practicum – Lean Project using the Improvement KATA Approach **Ann Arbor, MI**
UM Hospital Central Sterile Processing Department (CSPD) Jan. 2015 - April 2015

- Improved the management process of the identification and fulfillment of the daily surgical instrumentation requirements by creating vertical and horizontal communication across the organization at the UM Hospital CSPD

Summer Research Opportunity Program **Ann Arbor, MI**
U of M Industrial and Operations Engineering Department May-July / 2013

- Developed an interface using Excel VBA for the graphic representation of glaucoma patient records and their disease progression to support medical decision-making and provided the framework to incorporate a disease-monitoring algorithm

Undergraduate Research Assistant **El Paso, TX**
UTEP Department of Industrial, Manufacturing and Systems Engineering May 2011-2014

- Created GaBi Software tutorials taught to a Green Energy Manufacturing class to show how to do life cycle assessments
- Automatized the quality inspection of biomedical parts using machine vision systems and data mining

Video & Graphic Design Assistant **El Paso, TX**
UTEP Athletics Jan. 2010 – May 2014

- Coordinated video production and graphic design for various sports including Division I Football
- Designed e-mail marketing, social media, advertising, sales graphics, and all schedules posters for digital and print materials
- Awarded a full scholarship

SKILLS

- Spanish (Fluent), French (Basic)
- Proficient with Microsoft Office, Excel (VBA), Adobe Suite CS6
- Basic Proficiency with BlocPlan, Spiral, MATLAB, Minitab, Arena, AutoCAD, Unigraphics NX6, FactoryCAD, LayOPT, GaBi Software, AMPL, R, ProModel

AWARDS AND ACTIVITES

- Bonder Master’s Program Fellowship Recipient May 2015- Present
- U of M College of Engineering Master’s Fellowship Award May 2015- 2016
- President: Institute of Industrial Engineers and Alpha Phi Mu April 2013 – 2014
- Certified Six Sigma Green Belt through the Institute of Industrial Engineers (IIE) April 2012