JAVIER ALEJANDRO BELMONTE

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EDUCATION

- **Purdue University**   West Lafayette, Indiana, USA
  Master of Science in Mechanical Engineering | GPA: 3.77/4.00   August 7, 2020
  Focus**:** Design of Mechatronic Systems, Control Systems
  Thesis**: "**Design and Implementation of an Internet of Things Architecture for Immersive Interfaces"

- **National University of Tucumán**   Tucumán, Argentina
  Mechanical Engineer | GPA: 7.92/10.00   December 3, 2016
  Final Project**: "**Retrofitting of a Washing Machine"

WORK EXPERIENCE

- **Purdue University**   West Lafayette, Indiana, USA.
  Graduate Research Assistant at C Design Lab   August 2018 – August 2020
  - Designed and constructed the use cases for Shape Estructuralizer [1]
  - Developed artificial intelligence models using MATLAB and Weka to distinguish shapes through touch in soft robotics
  - Developed and implemented an IoT architecture that allows control and data visualization of machines remotely through virtual reality
  - Designed, developed, and manufactured an automated storage management system with IoT qualities, that allows to keep track of stock smartly and remotely

  Graduate Teaching Assistant of Computer-Aided Design and Prototyping   January 2019 – May 2019
  - Guided students in the process of learning the fundamentals of product design and ideation
  - Graded students' homework and projects, and provided suitable feedback for their learning process
  - Supported students in prototyping their projects with 3D printing and laser cutting
  - Helped students with CAD systems and simulations

  Graduate Teaching Assistant of Measurement and Control Systems I   August 2018 – December 2018
  - Guided students through the successful completion of laboratories destined to understand modeling and instrumentation of physical systems
  - Prepared and graded lab assignments giving proper feedback to students

- **National University of Tucumán**   Tucumán, Argentina
  Lecturer of Experimental Physics I   October 2017 – July 2018
  - Guided students of all engineering majors in learning the fundamental principles and laws of physics required to solve engineering problems
  - Topics included were Newtonian mechanics, elasticity, fluid dynamics and thermodynamics

  Undergraduate Teaching Assistant of Experimental Physics I   June 2011 – July 2017
  - Aided students in the resolution of exercises and questions of the topics covered in class during office hours and lectures

- **Scania Argentina S.A.**   Tucumán, Argentina
  Process Engineer Intern   February 2015 – July 2016
  - Engineered an automatic chips cleaning system for the tools of a broaching machine
  - Provided technical support to Production, standardized processes, and elaborated instruction sheets
  - Accomplished a diminishing in machining rejections of approximately 30% in central gear housings
  - Improved quality by eliminating marks and defects in parts caused by hits
  - Installed a system for managing and monitoring tool life
  - Implemented and instructed operators over reliable measurements systems

SCHOLARSHIPS AND AWARDS

- Fulbright Scholarship   Sponsor: Fulbright Commission| 2018 – 2020
- Full Tuition Award   Sponsor: Purdue University | 2018 – 2020
- Bicentenario Scholarship   Sponsor: Ministry of Education of Argentina| 2009 – 2014

TECHNICAL SKILLS

- Programming: C, C++, C#, MATLAB, Simulink, GNU Octave, Python, Assembler
- Web Development: HTML5, CSS3, JavaScript, Node.js, Express, MongoDB
- Design software:
  - Certified SolidWorks Associate, Autodesk Inventor, Fusion 360, AutoCAD, Creo Elements/Pro
- Engineering software:
  - ANSYS, Unity, NI LabVIEW, Autodesk EAGLE, LTspice, Weka
- Other software tools:
  - Adobe Photoshop, Camtasia Studio, Microsoft Office Suite
- Embedded Systems: Arduino, STM32F10X, Raspberry Pi, ESP32
- PLC: RSLogix 500

LANGUAGES

- Spanish: Native
- English: Advanced (C2)
- German: Intermediate (B1)