

JULIO A. REYES MUÑOZ

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Interested in contribute with projects related to edge and cloud computing, computation offloading, and mobile robotics, given my background in mechatronics, computer engineering, research, and my electrical design work experience.

EDUCATION

Master of Science in Computer Engineering
The University of Texas at El Paso (UTEP)

Anticipated date: May 2018
Overall GPA: 4.0

Bachelor of Science in Mechatronics Engineering
Autonomous University of Cd. Juarez (UACJ)

Awarded date: Dec 2014
Overall GPA: 9.73/10

Abroad Experience:

Technical University of Munich (TU-München)

June – Aug 2014

- Researched in a team of three 35 hours a week on haptic human-robot interaction at the Automatic Control Engineering Lab
- Accomplished the design and control of a robotic arm with 3-DOF at the end effector

National Institute of Applied Sciences of Strasbourg (INSA Strasbourg)

Sep 2011 – May 2012

- Designed and implemented the motors controller of a self-balancing vehicle project in a team of nine
- Pursued the third year of the Bachelor of Science in Mechatronics Engineering
- Learned about control theory, mechanics, and Java programming

WORK EXPERIENCE

Graduate Teaching Assistant

The University of Texas at El Paso – ECE Department

Jan 2015 – Present

- Reviewed senior projects proposals from electrical engineering students

DEC Electrical Design Engineer

Delphi Automotive – Mexico Technical Center

Feb 2015 – Aug 2016

- Designed PCB Layouts with an optimized use of copper for high volume projects, saving thousands of dollars
- Coordinated project to implement thermal simulations on the design process, which reduced design iterations
- Development of software tools to automate the generation of the bill of materials and manufacturing files
- Negotiation of design tradeoffs with the client, which lead to savings in material an manufacturing costs
- Awarded two of the highest volume business pursuits programs from GM and Ford

Student assistant at the Robotics and Automation Lab

Autonomous University of Cd. Juarez (UACJ)

Jun 2013 – Dec 2014

- Kept the FESTO electro-pneumatic stations in good conditions for the labs
- Added vision libraries to the Lab's distributed multi-robot architecture and implemented a GUI for the custom OS
- Maintenance of robotic platforms (P3-AT, AmigoBot, home-made wheeled and multi-extremity platforms)
- Technical assistance for the use of sensors (odometers, LIDARs, sound, touch, vision)

OTHER EXPERIENCE

XIX Summer Research Internship Delfin Conference

Aug 2014

- Presented the project "Design and control of a texture recognition robotic arm with 3-DOF at the end effector" at the Autonomous University of Nayarit (UAN), Mexico

PUBLICATIONS

Refereed Book Chapters

1. **J. Reyes Muñoz**, E.A. Martinez Garcia, Analysis and modelling of a Hoekens-Jansen biped, **Book Numerical Modelling in Robotics**, OmniaScience (Omnia Publisher SL), Spain, 2015 ISBN:978-84-942118-8-1

Patents

1. MX/a/2016/003820, Aparato subactuado de reconfiguración mecanizada para caminata bípeda. (*Underactuated machine with mechanical reconfiguration for bipedal walking*)

SKILLS

Fluent in Spanish, advanced English and French

Proficient in: Linux, Matlab, Mentor Graphics, C/C++, SolidWorks, Proteus

Familiar with: OpenCV libraries, Simulink, Subversion, Visual Basic, LATEX, Java, Python, Lab View, MIPS Assembly, QT Creator, OMNET++, Open vSwitch