

Alejandro Sedano

Automation & Robotics Engineer

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PROFILE

A Robotics Engineer with experience in both technical and project management fields. I have worked for recognized Robotics Research Institutes and lead technical projects in the food and medical sectors. I have global awareness by having lived and worked in 4 different countries and a joint European Master Degree in Automation, Robotics and Applied Informatics. I'm passionate about technology and a web developer in my free time.

I'm looking for full time jobs in the Robotics & Medical Devices industry or technology-based startups.

EDUCATION

M.Sc. Automation and Robotics
Warsaw University of Technology, Poland
Graduated with honors – 2013

Mechatronics Engineering, B.Sc.
Universidad Panamericana, Mexico
Graduated with honors – 2010

M.Sc. Robotics and Applied Informatics
Ecole Central de Nantes, France
Graduated – 2012

EXPERIENCE

Project Engineer, Mars, Inc., July 2014-Present, Poland

- Working on technically complex projects that involve breakthrough technology and leadership skills.
- Responsible of designing automation solutions, preparing functional & technical specifications, quotations, and installation of industrial equipment.
- Implemented a sustainability project that achieved savings of steam equivalent to 250k€ per year
- Successfully delivered a new 20kton/year pet-food automated production process line.

Robotics Research Assistant, Fraunhofer IPA, March 2013 – December 2013, Germany

- Mechanical design, modeling, construction, and testing of mechanical systems for automated modular robots. Working in an international research environment with the latest robotic technology.
- Created a novel robotic structure based on state of the art technologies for rapid prototyping together with FEA optimization based on biological engineering principles.

Validation and Development Engineer, TDI-SA., September 2009 – August 2011, Mexico

- Design, testing, validation and development of orthopedic medical devices under strict medical regulations such as ISO 13485 and FDA.
- Create and maintain documentation related to manufacturing process such as functional specifications, manufacturing drawings and quality checklists compliant to CE regulations.
- Creation of fixtures and mechanical systems in compliance with ASTM norms to perform the testing and validation of 20 families of orthopedic products.

LANGUAGES

Spanish • Native
English • Full Professional Proficiency

Polish • Working Proficiency
German • Limited Proficiency

SKILLS

JavaScript/HTML/CSS
Python & VBA Programming
Presentation Skills

3D CAD Design & Simulation
Project Management / ERP
Product Development

PROJECTS

Myorobotics (Make your own robotics)

The EU project Myorobotics has the objective of creating a toolkit of 3D printed parts for the creation of modular, affordable, robotic systems.

- Developed and produced modular prototype structures based on optimal biological principles.
- Worked with state of the art additive manufacturing equipment. SLS, FDM & SLA.

Robot Programming Editor (VAL Parser)

Design and implementation of the front- and back-end of a VAL robot programming parser using the spiral model. The software is open source (GitHub) and currently used in robotic labs.

- Created of a Lexer and Parser for VAL robot programming language using ANTLR.
- Developed a GUI focused on usability and user experience in NetBeans.

SENEKA (Roboter-Sensor-Netzwerk für Katastrophenmanagement)

The SENEKA project idea aims to provide rescue teams with sensors and robots capable of aiding in the search and rescue of victims in disaster areas or dangerous situations.

- Responsible of developing and manufacturing an actuated base for a LiDAR system.
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CERTIFICATES

Computer Science and Programming, MITx

Project Management Essentials, Mars University

Responsive Web Design, Udacity

Topology Optimization and FE Analysis, CATOPO

Interactive 3D Graphics, Udacity

TopSolid 7 CAD, CAM & PDM, Cadtronica

HOBBIES & INTERESTS

Web development, self-learning. I have published 3 websites. sedano.me, viveroeljardin.mx and mysoft.net.pl

Internet of Things, creating media centers and web servers with Raspberry Pi

Video Games and **Travelling**, two things I cannot live without.