Contactar

darutto@gmail.com

www.linkedin.com/in/leonardoga (LinkedIn)

Aptitudes principales

Data Analysis

Business Analysis

Machine Learning

Languages

Spanish (Native or Bilingual)

English (Full Professional)

French (Elementary)

German (Elementary)

Certifications

GPT-4 Foundations: Building AI-Powered Apps

Publications

Room-Temperature Routes Toward the Creation of Zinc Oxide Films from Molecular Precursors

Graphene ink as a conductive templating interlayer for enhanced charge transport of C60-based devices

Leonardo Gonzalez Arellano

Digital program manager AI/ML

Allison Park, Pennsylvania, Estados Unidos

Extracto

I have a knowledge base that spans from mechanics, electronics, sensors, actuators and the possibility to implement them in the technologies of the future at the nanoscale. My engineering background has given me a platform to develop a number of projects that have evolved to different scenarios that span from the construction of small vacuum reactors, or gas sensing equipment, to the fine tuning of a Near-field scanning optical microscope.

My experience includes the fabrication and characterization of a diversity of electronic devices, including organic field effect transistors, organic solar cells and electronic sensors for chemical vapours. The aim of my research is to increase the fundamental understanding of charge transport in molecular systems, by determining the role that morphology and structure play in different scenarios.

Experiencia

PPG

7 años 5 meses

Digital Program Manager

octubre de 2024 - Present (1 año 4 meses)

Pittsburgh

Research Chemist

septiembre de 2018 - octubre de 2024 (6 años 2 meses)

Greater Pittsburgh Area

University of Massachusetts Amherst

Postdoctoral Researcher

febrero de 2014 - julio de 2018 (4 años 6 meses)

Estados Unidos

I have been involved in numerous projects under the supervision of Prof. Alejandro Briseno and Prof. James Watkins, both leaders in their respective

fields. They helped me develop skills in the study of the relationship between the surface interaction with different organic materials and correlate the changes in their molecular structure and its electronic properties.

Graphene, is one of the cornerstones of my research, I employ it as an interlayer for surface modification in diodes, as a template for the manipulation of the orientation of semiconducting materials, as a sensing element for the detection of stress markers such as cortisol, as a basal element for the development of antibacterial surfaces.

The second cornerstone of my research is the nanofabrication of electronic devices including, biosensors, gas sensors, field effect transistors, photovoltaics, and diodes. Along with device fabrication comes the development of a strong expertise in electronic, surface, and materials characterization techniques.

As a part of one of the most prestigious polymer departments in the country, my research at UMass is completed with the development of polymer-composite materials for low friction, high-temperature endurance materials for industrial coatings. As well as in the use of soft polymeric materials for nanoimprint lithography to achieve hierarchical functional structures.

Centro de Investigación Científica y de Educación Superior de Ensenada

Postdoctoral researcher

agosto de 2013 - febrero de 2014 (7 meses)

Parque de investigación e innovación tecnológica

The research project involved the use of metamaterials for plasmonics applications, deposition of layered metallic thin films and graphene hybrids. Leakage microscopy and development of a scanning near field optical microscope prototype.

Educación

Imperial College London

PhD, Materials Science · (2008 - 2012)

The University of Sheffield

MSc, Nanoelectronics and Nanomechanics · (2007 - 2008)

Tecnológico de Monterrey

B.S, Ingeniería electrónica, robótica y mecatrónica · (2001 - 2006)

YESI EDUCATION

· (abril de 2024)