

J. Antonio Mendoza Gonzales

Houston, TX • am251@rice.edu • [linkedin.com/in/antoniomendozag/](https://www.linkedin.com/in/antoniomendozag/)

EDUCATION

Rice University , Houston, TX Master in Electrical and Computer Engineering	May 2024
Instituto Internacional de Formación Ambiental , Madrid, Spain Master in Solar Energy (Online)	July 2015 - July 2016
European Business School , La Paz, Bolivia Master in Business Administration	Aug 2011 - Nov 2012
Universidad Privada del Valle , La Paz, Bolivia Bachelor in Telecommunications Engineering	Feb 2006 – March 2011

SKILLS AND CERTIFICATIONS

Relevant Coursework: VLSI Design, Embedded Systems, Machine Learning, Networking, Wireless Systems, Prototyping

Relevant Projects: Microcontrolled GPS+Accelerometer+SIM Card equipped blind probing cane; Power Line Communication intercom; Open EDX implementation with AWS EC2

Professional Training - Satellite Technology: China Academy of Space Technology (CAST), Beijing, China, 1580 Hours

Cisco Networking Certifications: CCNA, CCNA Security, CCDA - CISCO ID: CSC012071519

Specific technical skills and tools

- VLSI high level design with Xilinx tools. Linux driver writing, kernel customization
- C, Python, CUDA, Matlab, PHP. Applications/libraries: ML (numpy, pandas), OpenCV
- Computer Networking: Routing & Switching, Information Security tools, network emulation SW
- Lighting/optometrics: Dialux, Photometric ToolBox. Energy efficiency/solar energy simulation (PVSyst, SAM, Energy Plus)
- Circuit simulation (Proteus), PCB design from schematic to Gerber files (Eagle, Altium)

Languages: English, Spanish, German

RELEVANT EXPERIENCE

EnerGea-Tecnonautas, Co-Founder, La Paz, Bolivia March 2015- July 2022

- Designed system-level requirements and specification of LED lighting household and street products, coordinated with manufacturing overseas
- Prototyped LoRaWAN and Zigbee enabled street light controllers, ESP32 and STM32 enabled household lighting controllers
- Advised El Alto, Bolivia municipality in LED street lighting specifications, smart control and photometric characteristics
- Innovated locally with the execution of LED lighting, post-consumer electronic waste plastics/fluorescent lights recycling projects, directed the construction of in-house machine, reaching dozens of industries in Bolivia, solving gaps in those areas
- Drafted grants proposals for funds and led the team in projects to mentor and teach STEM programs to middle school students, resulting in grants awarded from Boeing (through PADF Foundation) and Bolivian Ministry of Development

Universidad del Valle, Electronic Engineering Lecturer, La Paz, Bolivia Aug 2014 – June 2022

- Guided student projects and prototypes in microcontroller, computer networks, embedded and networked systems design

US Dept of State's Young Leaders of the Americas Initiative, Dallas, TX and Washington DC Sep 2016 – Nov 2016

- Job Shadowed Executive Director of Dallas Innovation Alliance (DIA) Jennifer Sanders, part-time, attending DIA meetings with providers, public institutions representatives
- Worked for Good Faith Energy, project drafting and installation of solar panels, part-time. Visits and interviews with energy efficiency expert: Paul Westbrook (Texas Instruments, RE:source design)

Bolivian Space Agency (ABE), Space Segment Engineer, La Paz, Bolivia Dec 2013- May 2015

- Collaborated in the In-Orbit Tests and official bilateral meetings with the manufacturer for Tupac Katari satellite
- Designed technical proposals for satellite applications, evaluation of satellite's parameters, Remote Sensing satellite project
- Bolivian delegate in the Governing Board for the Regional Center for Space Science and Technology Education Asia Pacific

SERVICE AND LEADERSHIP

- Developed solutions to educate Bolivian school kids in COVID-19 pandemic, given lack of Internet access and associated infrastructure for virtual education. Collaborated with the Ministry of Education, won grants for creating and disseminating STEM related Open Educational Resources. Assembled emergency ventilators donated by Bolivian expatriates living in Europe
- Led a team of 34 engineers during the Virtual Satellite Design phase of the Professional Training in China. Achieved the scholarship after a nationwide competition, getting 1st place among 1742 Bolivian engineers

SCHOLARSHIPS AND AWARDS

Fulbright Scholarship Foreign Student, US Dept of State Congratulatory Memorandum, Bolivia Minister of Education

Winner - Greenovators Project Contest Latinamerica - IADB and Earth University