YADIRA BORDLEMAY PADILLA

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Skills

Technical Skills

Software: Inventor and Vault, Solid Edge, Creo, LabVIEW, ANSYS, MATLAB, C++, Illustrator, Photoshop, MS Office suite including Project and Visio

***Training and Certification*:** COR training, EPA Section 608, Zeiss CMM operator, enrolled EIT, orbital welding, machine shop tools, carbon fiber design, manufacturing, and production, graphic design and web development, active secret security clearance

Soft Skills

Personal qualities: Safety conscious, holistic communicator, empathic with high level of emotional intelligence, effective leadership, public speaking, dependable interpersonal relationships, flexibility, resourceful with a can-do attitude, avid learner and travel-oriented

Languages: Spanish-native proficiency, English-full proficiency, German-basic working proficiency

Work Experience

Aerospace Engineer - Project Manager **08/2022 to Present**
U.S Naval Research Laboratory **Washington, DC**

• Executed role as NRL CCOR-2 project manager and liaison between NRL, the customer NOAA, oversight NASA, and spacecraft provider. Supported continuous information exchange and strategic planning directions orally or in weekly status reporting, monthly program management status reviews, or daily correspondence.
• Administered evaluations, approvals, and submissions of budget reports (533).
• Directed maintenance, review, approval and submission of project integrated master schedule.
• Routinely assessed and identified schedule, budget, technical, and programmatic risks. Actively assessing and updating risk tracking, reporting, and risks mitigation tool.
• Direct instrument team through hardware development, environmental, and performance testing. Managed and facilitated instrument and staff logistics, staff planning and safety, test readiness reviews, programmatic mission gate reviews, and anomaly resolution meetings for tests carried out at NRL and GSFC AI&T facilities.
• Completed self-imposed leadership training, contracting officer representative trainings, and served as technical review member for NRL federal contracts office new RFP for support staff, all in the aim to better support activities in service to new role as CCOR-2 project manager.
• Representing authority or point of contact for government documentation such as Inter Agency Agreements (IAA), transfer and donation of contractor inventory (DD1149), and materials inspection and receiving report (DD250)

Aerospace Engineer - Deputy Project Manager **03/2021 to 08/2022**
U.S Naval Research Laboratory **Washington, DC**

• Managed instrument integration planning, logistics, and training of personnel interfacing with spacecraft provider for space weather solar coronagraphs, CCOR-1 and CCOR-2, for NOAA's GOES and SWFO programs.
• Assisted system engineering team during spacecraft level milestone reviews, interface definitions, and presented progress during TIMs with spacecraft providers, NASA, and GOES management.
• Lead AI&T engineer responsible for thermal vacuum test set-up, mechanical integration, and chamber certifications for CCOR-1 instrument, contributing significant effort to reach program milestone.
• Performed safety inspections, plans, and training for improvement of various onsite laboratory facilities utilized in the validation and testing of current and future flight instrument.
• Successfully lobbied for the procurement and implementation of cellular portable hotspots and repeaters for interior offices and lab spaces to promote more efficient communication. Worked with the branch system administrators to provide computing resources to both individuals and teams to improve team productivity.

Lead Mechanical and Thermal Engineer **08/2015 to 03/2021**
Cornell University **Ithaca, NY**
• Conducted duties as lead mechanical engineer and designer for the forward pixel detector for Higgs Boson studies for the Compact Muon Solenoid (CMS) experiment at CERN. Established new designs, prototypes, quality standards, organized and led technical planning, implementation, integration, and risk management for designs of various detectors and detector components.
• Supervised thermal engineering processes for prototypes and test equipment. Planned, conducted, and verified thermal computational analysis nationally and internationally for the inner tracker detector.
• Commissioned specialized high-end cooling plant at CERN and introduced this technology to the US with a duplicate machine built and tested at Cornell University.
• Established new laboratory and implemented safety plans, experimental techniques and training for more than 30 university students, faculty, and staff. Managed a range of student team members throughout the years.
• Acted for 5 years as national and international representative for US-CMS, CERN, and Cornell University, establishing new relationships and collaborations, presenting results in meetings, functioning as principal member in design reviews, and conferences.

Research Engineer **08/2012 to 04/2015**
Creative Thermal Solutions, Inc. **Urbana, IL**
• Identified and defined project goals, objectives, and deliverables based on 5 diverse customer needs.
• Directed and delegated work to technical staff and engineers to achieve project goals and meet deadlines, verifying tests and product quality.
• Designed, assembled, and validated prototypes, and generated for the US market the first carbon dioxide and propane bottle coolers for both Coca-Cola and PepsiCo, achieving high system reliability while keeping energy consumption and cost low.
• Assembled designs for manufacturing using technical drawings, numerically modeled components, and design analysis of existing light commercial vapor compression systems. Evaluated or developed new components following UL standards and customer requirements to identify areas of improvement and cost reduction in manufacturing.
• Created, taught, and supported technical content on refrigeration system component modeling, selection, and implementation for 3 distinct short courses tailored to technicians, engineers, and scientists.

Education

Masters of Science in Mechanical Engineering **08/2012**
University of Illinois at Urbana-Champaign Urbana, IL

Bachelor of Science in Mechanical Engineering **05/2010**
University of Illinois at Urbana-Champaign Urbana, IL

Activities and Accomplishments

• Awarded Letter of Appreciation by NRL Commanding Officer and Division Superintendent in recognition of exceptional contributions to the Compact Coronagraph Project
• Awarded the CERN 2019 CMS Tracker Detector award for the international collaboration for important contributions to the mechanical design of the Inner Tracker upgrade, the TFPX mechanical structure and overall integration of the Inner Tracker.
• Planned and implemented sustainable drinking water systems for rural communities in Honduras working with students from various universities, local government, and non-governmental organizations.
• Conducted student outreach ranging from linguistics development, STEM day exercises that included robotics and physics demonstrations, and mentorship at all educational levels.
• Participated in various sports and certified as a PADI advanced open water diver. Developed a passion for tinkering, repair, and maintenance with a side hobby in indoor gardening and maintaining my fish and other aquatic pets.