

## PROFESSIONAL EXPERIENCE

<b>NASA Goddard Space Flight Center</b> (10,000 employees, Astrophysics Division)	<b>Oct 2014 – Present</b>
<b>Electrical Project Development Leader</b> (Sep 2017 – Present)	<b>Washington D.C.</b>
<i>Electrical Project Development Leader for the \$40M HIRMES project (space telescope hunting for earth-like planets across the galaxy)</i>	
<ul style="list-style-type: none"> <li>Manage 10 Engineers and lead all electrical-related activities of 40 electrical, mechanical and thermal engineers to integrate and operate the HIRMES space telescope mounted in a Boeing 747 as a part of the Stratospheric Observatory for Infrared Astronomy (SOFIA) program.</li> <li>Coordinate deliverables and electrical system integration between 4 NASA centers, private companies and universities.</li> <li>Conceived the instrument design, created a 2-year project schedule, assigned tasks to individuals and lead daily meetings.</li> <li>Entrusted with hiring 4 team members, a responsibility typically reserved for leadership members with 15+ years of experience</li> <li>Awarded the 2019 NASA Early Career Public Achievement Medal (1 of 4 recipients among 80,000 NASA employees; youngest recipient this year).</li> </ul>	
<b>Lead Systems Engineer</b> (Oct 2015 – Oct 2018)	
<i>Lead Systems Engineer for the \$6M Balloon Experimental Twin Telescope for Infrared Interferometry (BETTII). BETTII, a stratospheric balloon-based telescope, was the first space interferometer deployed to study the formation of newborn stars and planetary systems.</i>	
<ul style="list-style-type: none"> <li>Directed team of 20 engineers and scientists, as project's electrical and control systems lead; conceived and implemented all the control and stabilization algorithms to point the telescope in space with groundbreaking accuracy. Operated the telescope, commanding it to observe different target stars.</li> <li>Validated new technology/promoted to Co-investigator (a position typically reserved for PhD/senior engineers) on BETTII v2 mission, beginning Jan 2020.</li> <li>Mentored and supervised graduate research for 6 Masters and PhD students on a daily basis.</li> <li>Published 9 scientific papers in journals, including the <i>Journal of Astronomical instrumentation</i> and <i>SPIE Defense and Commercial Sensing</i>.</li> </ul>	
<b>Lead Communications Engineer</b> (Oct 2014 – Oct 2015)	
<i>Lead Communications Engineer for the Balloon Experimental Twin Telescope for Infrared Interferometry (BETTII)</i>	
<ul style="list-style-type: none"> <li>Developed a robust telecommunications infrastructure for the telemetry system used by the BETTII Telescope that detected and auto-corrected errors.</li> <li>Member of the core team (1 of 2 out of 20) during deployment/operation of the telemetry system during BETTII's launch and flight. Collected 300GB of data.</li> </ul>	
<b>Equitur</b> (Equestrian travel agency with 3 employees and €200K in annual revenue)	<b>Dec 2006 – Dec 2011</b>
<b>Chief Executive Officer</b>	<b>Barcelona, Spain</b>
<ul style="list-style-type: none"> <li>Secured €100K in funding, managed staff, and travelled Europe/Africa to scout locations. Managed company until 2011 sale to an investor group.</li> </ul>	

## LEADERSHIP AND COMMUNITY INITIATIVES

- Fundación Rafael Del Pino, Scholarship Recipient** (1 of 12, selected from 1,500) – Awarded to Spanish citizens for excellent scholarship and potential. (prize includes €50,000 annually for 2 years of business school) (2019)
- Personal project (Built IoT sensor to monitor air quality)** – Installed sensors to detect pollution in high traffic areas in Maryland (2hr/wk for 16 wks, 2019)
- NASA Office of Education, Speaker** – Promoted STEM to high school students and Latino women across Maryland (4hr/month, 2016-2019)
- USA Science and Engineering Festival** (dedicated to promoting science and engineering to students), *Volunteer* – Conducted workshops and talks to educate children about applications of math and science in space telescopes (24hr annually for 2 years, 2016; 2017)
- Society of Photo-optical Instrumentation Engineers, Speaker** – Gave lecture on pointing telescopes in space for audience of 50 (5 talks, 2017-2018)
- NASA Interviewee** - Gave 7 media interviews about telescopes, Apollo's 50<sup>th</sup> anniversary and NASA to radio shows/newspapers/magazines (2015-2019)
- Personal project (Designed/Built/Flew a quadcopter drone)** - Published operating software so others can build similar drones (10hr/wk, 2015-2016)
- Rural Community, Vaalwater, South Africa, Volunteer** - Provided food/organized equestrian activities for children ages 5-14 (10hr/wk, Summer 2009)
- Horse Safaris, Volunteer Guide** - Led overseas guests on week-long horse safaris in South Africa, Botswana and Iceland (60hr/wk, Summers 2009-2013)
- Freelance Journalist** - Published 3 articles for Spanish and Mexican horse magazines describing various horse trails and safaris in Africa (2008-2012)
- Local Festivals in Spain/South Africa/Botswana/Tunisia, Volunteer** - Organized ~50 events with horses/ponies for children (12hr/event, 2006-2011)

## EDUCATION

<b>Higher Institute of Aeronautics and Space (Grande École ISAE-SUPAERO)</b>	<b>Toulouse, France</b>
<b>Aeronautical Engineering Graduate Program (Year Abroad Program) Major: Space Communications</b> / GPA: 14.3/20	<b>Aug 2013 –Mar 2014</b>
<ul style="list-style-type: none"> <li><u>Grants and Scholarships, Recipient</u> - Merit-based grant from Spanish Ministry of Education &amp; Science (MECD)/Erasmus Scholarship (full tuition and €3.7K).</li> <li><u>Researcher</u> - Conducted research for Airbus on improving ground to satellite communications and avoiding drone collisions (10hr/wk for 7 months, 2013-14)</li> <li><u>NASA Goddard, Intern</u> - Worked on the BETTII space telescope, resulting in full-time job offer (40-60hr/wk, Apr-Oct 2014)</li> <li><u>Table Tennis Team, Member</u> – Practiced twice weekly and participated in competitions across Occitanie Region, France (5hr/wk, 2013)</li> </ul>	
<b>Polytechnic University of Catalonia (UPC -ETSETB)</b>	<b>Barcelona, Spain</b>
<b>Master of Science in Telecommunications Engineering</b> / GPA: 6.9/10	<b>Sep 2011 –Jun 2013</b>
<ul style="list-style-type: none"> <li><u>Grants and Scholarships, Recipient</u> – Merit-based MECD (Spanish Government) and need-based AGAUR (Catalan Government) (full tuition and €10K).</li> <li><u>Master's Thesis</u> – “Telemetry System of BETTII Space Telescope at NASA Goddard.” Received honors (9.5/10)</li> <li><u>Mobility App, Developer</u> - Led 5-member student-team to develop app for 2012 London Olympic Games (#4 among 80 competitors); hired as an intern by the sponsor, ATOS Software, as a result of the work. (30hr/wk for 7 months, 2012)</li> <li><u>Soccer/Volleyball Teams, Member</u> – Practiced twice weekly and participated in competitions across Spain (8hr/wk, 2012)</li> </ul>	
<b>Polytechnic University of Catalonia (UPC -ETSETB)</b>	<b>Barcelona, Spain</b>
<b>Bachelor of Science in Electrical Engineering</b> / GPA: 5.9/10	<b>Sep 2008 –Jun 2011</b>
<ul style="list-style-type: none"> <li><u>Grants and Scholarships, Recipient</u> – Merit-based MECD (Spanish Government) and need-based AGAUR (Catalan Government) (full tuition and €15K).</li> <li><u>Member</u> (1 of 8) of AUCOOP (delivering technology to rural areas) – Developed/shipped Internet repeaters and PCs to Mexico &amp; Bolivia (2hr/wk, 2011)</li> </ul>	

## ADDITIONAL INFORMATION

<b>GMAT:</b>	700 (Q: 50 V: 35 IR: 7 AWA: 5)	<b>TOEFL:</b> 116 (R: 30 L: 29 S: 29 W: 28)
<b>Languages:</b>	Spanish (native), Catalan (native), English (fluent), French (fluent), Italian (basic)	
<b>Interests:</b>	Planet hunting across galaxies, horse riding, building gadgets, playing piano, sailing, soccer, salsa dancing, and traveling (36 countries).	