**Jordi Vila Hernández de Lorenzo** jordivilahdl@gmail.com | www.jordivi.com

#### PROFESSIONAL EXPERIENCE

**NASA Goddard Space Flight Center** (10,000 employees, Astrophysics Division) **Oct 2014 – Present**

***Electrical Project Development Leader*** *(Sep 2017 – Present)* **Washington D.C.**

*Electrical Project Development Leader for the $40M HIRMES project (space telescope hunting for earth-like planets across the galaxy)*

* 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.
* Coordinate deliverables and electrical system integration between 4 NASA centers, private companies and universities.
* Conceived the instrument design, created a 2-year project schedule, assigned tasks to individuals and lead daily meetings.
* Entrusted with hiring and mentoring 4 team members, a responsibility typically reserved for leadership members with 15+ years of experience
* Awarded the 2019 NASA Early Career Public Achievement Medal (1 of 4 recipients among 80,000 NASA employees; youngest recipient this year).

***Lead Systems Engineer*** *(Oct 2015 – Oct 2018)*

*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.*

* 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.
* Validated new technology/promoted to Co-investigator (a position typically reserved for PhD/senior engineers) on BETTII v2 mission, beginning Jan 2020.
* Mentored and supervised graduate research for 6 Masters and PhD students on a daily basis.
* Published 9 scientific papers in journals, including the *Journal of Astronomical instrumentation* and *SPIE Defense and Commercial Sensing*.

***Lead Communications Engineer*** *(Oct 2014 – Oct 2015)*

*Lead Communications Engineer**for the Balloon Experimental Twin Telescope for Infrared Interferometry (BETTII)*

* Developed a robust telecommunications infrastructure for the telemetry system used by the BETTII Telescope that detected and auto-corrected errors.
* 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.

**Equitur** (Equestrian travel agency with 3 employees and €200K in annual revenue) **Dec 2006 – Dec 2011**

***Chief Executive Officer*  Barcelona, Spain**

* Secured €100K in funding, managed staff, and travelled Europe/Africa to scout locations. Managed company until 2011 sale to an investor group.

#### 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 50th 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

**Higher Institute of Aeronautics and Space (Grande École ISAE-SUPAERO) Toulouse, France**

***Aeronautical Engineering Graduate Program*** *(Year Abroad Program)* ***Major: Space Communications*** *|* GPA: 14.3/20 **Aug 2013 –Mar 2014**

* Researcher - Conducted research for Airbus on improving ground to satellite communications and avoiding drone collisions (10hr/wk for 7 months, 2013-14)
* NASA Goddard, *Intern* - Worked on the BETTII space telescope, resulting in full-time job offer (40-60hr/wk, Apr-Oct 2014)
* Table Tennis Team, *Member* – Practiced twice weekly and participated in competitions across Occitanie Region, France (5hr/wk, 2013)

**Polytechnic University of Catalonia (UPC -ETSETB) Barcelona, Spain**

***Master of Science in Telecommunications Engineering |*** **Sep 2011 –Jun 2013**

* Master’s Thesis – “Telemetry System of BETTII Space Telescope at NASA Goddard.” Received honors (9.5/10)
* Mobility App, *Developer* - 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)
* Soccer/Volleyball Teams, *Member* – Practiced twice weekly and participated in competitions across Spain (8hr/wk, 2012)

**Polytechnic University of Catalonia (UPC -ETSETB) Barcelona, Spain**

***Bachelor of Science in Electrical Engineering |*** **Sep 2008 –Jun 2011**

* *Member* (1 of 8) of AUCOOP (delivering technology to rural areas) – Developed/shipped Internet repeaters and PCs to Mexico & Bolivia (2hr/wk, 2011)

#### ADDITIONAL INFORMATION

**Languages:** Spanish (native), Catalan (native), English (fluent, TOEFL 116), French (fluent), Italian (basic)

**Interests:** Planet hunting across the galaxy, horse riding, building gadgets, playing piano, sailing, soccer, salsa dancing, and traveling (36 countries).