

# Rebecca Bishop, Ph.D.

## Principal Scientist, Space Science and Applications Laboratory

***Rebecca is a scientist who studies the upper atmosphere at The Aerospace Corporation. Read more to learn how Spock from Star Trek inspired her career path!***

### **What do you do, and how did you get here?**

I am a space scientist! I specialize in understanding the near-Earth space environment (~50 - ~1,500 miles above the surface). I help design, build, and fly instruments on sounding rockets, CubeSats, satellites, and the International Space Station in order to measure how the particles in space (the ionosphere and thermosphere) interact. I also use data from radars on Earth and GNSS receivers (other countries' satellite system constellation similar to GPS) along with models to observe and understand that region of space.

I have always loved outer space, and, like most kids in elementary school, I wanted to be an astronaut (and the president!). I loved Star Trek: The Original Series and my favorite character was Spock. While Spock was strong, it was his mind that was valued and earned him a place on all the "away teams." He saved the day through intellect, and not brute force.

In middle school, I realized I actually wanted to help people get into space – if there was no one to build the rockets, there couldn't be any astronauts! I really loved both Earth science and physics, but I knew I didn't want to work outdoors, so I pursued physics. During college, I participated in a summer program at Stony Brook University, and was assigned to the Stratospheric Research group. Here, I saw that I could combine my love of the environment with my passion for physics. That drove me to pursue space physics in graduate school.

### **What skills do you use on a daily basis?**

I use communication skills, like speaking, writing, and working as a part of a team. I also use a lot of math (trigonometry, algebra, calculus), plasma physics, fluid dynamics, classical mechanics, and computer programming.

### **What is the most exciting/fulfilling part of your current job? What's the most challenging part?**

The most exciting part is when one of my instruments or satellites successfully launches, turns on, and takes data. The most challenging is communicating with people from all levels of skill and background in order to communicate the importance of the work and its impact (on DOD missions to everyday life activities).

### **What was your favorite subject in high school, and why did you love it?**

Literature. I loved it because I got to learn how to see the world, topics, and issues from different points of view. It taught me to think critically, write coherently, and delve beyond the surface for a deeper analysis. Even today, I still love to read, especially urban fantasy books!

### **If you could instantly learn any language, which would it be and why?**

Japanese. It is so very different, and it would take a long time to learn now. There are a lot of amazing colleagues in Japan that I wish I could speak to in their own language.





# Jerry Fuller

## Senior Engineering Specialist, Vehicle Design and Innovation Department

***Jerry is an engineer at The Aerospace Corporation and has dyslexia. Learn how Jerry used his unique way of understanding problems to his benefit when solving complex engineering challenges, and how a laser show at a school dance influenced his career.***

### **What do you do, and how did you get here?**

When I was a kid I used to build model rockets and fly them from my backyard onto a nearby field. I always had an interest in building things and understanding how they worked. I first saw a laser at my high school prom. The DJ had glued a small mirror to one of the speakers and bounced the laser off of it to produce a very modest light show. This pencil-thin beam of light had me entranced.

I have dyslexia, one of those different intellectual styles that, for a long time, was seen as something that one would have to overcome. As someone growing up with dyslexia, I often found self-education to be more useful than conventional educational situations.

After a while, I came to appreciate dyslexia for being a different way of seeing the world or understanding a problem. For example, I can often see connections between seemingly unrelated facts that others miss, and I can think in 3D more easily than others can.

Later, I got an associate's degree in electro-optics, eventually coming to Aerospace as a laser technician. Because I had mechanical design skills (and had designed some very successful products already), I began to take on mechanical design tasks, eventually designing most of the mechanisms for Aerospace's CubeSat program.

### **What skills do you use on a daily basis?**

I use design skills and software like CAD, and tools that let me quickly try out an idea, like 3D printers and laser cutters. Figuring out how to work with people who don't think the same way I do has been an ongoing skill development project for me.

### **What is the most exciting/fulfilling part of your current job? What's the most challenging part?**

I get to design things that have never existed before! And many of those things go into space! The challenge for me often comes when trying to translate a new idea into traditional engineering terms, so that others can understand the vision I am trying

to convey. The secret for me, as someone with dyslexia, is to develop mutually respectful relationships with more neurotypical coworkers (traditional "rocket scientists") as well as with others with atypical thinking styles (autism, ADD, etc.). All these thinking styles have their place—and being part of a team that understands this is critical.

### **If you could give a piece of advice to your younger self, what would it be?**

There are many well-meaning people out there who will give you advice that they think is best, based on their perception of you. Often, this will be entirely wrong. Listen to them, but in the end it's up to you to understand yourself and plot your own course. If you're not among the neurotypical make the most of your differences as well as the commonalities. Sometimes, to get the best vantage point, you'll need to "zig while others zag."

### **What was your favorite subject in high school, and why did you love it?**

Physics! While my grades weren't phenomenal, whenever we had a build project (like make a cardboard bridge that can support your weight), mine was the best. My dyslexia enables me to visualize things in a way that others can't, which is why I was always good at prototyping and building. My unorthodox background (having only an associate's degree with a lot of self-education) meant it took longer than it should have to apply this ability in a work setting.

### **What is your most used phone app?**

I don't really have a favorite app, though some interesting ones include Simple Rockets (this gives an intuitive understanding of the physics of objects in orbit) and Geocaching. Another app that I use a lot allows me to see what my car's computer is doing, through an onboard diagnostics Bluetooth link.





# Christine Gabrielse, Ph.D.

Research Scientist,  
Space Sciences Department



***Christine studies the atmosphere as a research scientist with The Aerospace Corporation and sees herself as an explorer who wants to change the world. Learn how a school drama club helped her overcome anxiety so today she can share research findings with her coworkers.***

## **What do you do, and how did you get here?**

I study the near-Earth space environment—specifically, how energy from the sun flows through Earth’s magnetic field (called the magnetosphere) and into Earth’s upper atmosphere (called the ionosphere) to create the dazzling display of aurora. This flow of energy has big impacts on human activity; it can increase radiation near where our satellites orbit or where humans hang out at the International Space Station, which can be dangerous for both. The aurora heats the atmosphere—which causes it to rise—and can drag down satellites. It also affects radio wave propagation, telecommunications, and GPS.

Although I didn’t envision myself studying space weather, I was always an explorer and adventurer. I felt that studying outer space combined my love of exploration with my desire to do something to change the world. I studied space sciences and did undergraduate research with a professor who studied space weather. At UCLA my graduate research advisor was the principal investigator on a NASA mission to study how energy is explosively transported in Earth’s magnetic field.

## **What skills do you use on a daily basis?**

One skill I use daily is something I guess I’d call “presenting.” Presenting your science is JUST as important as doing the actual analysis, because if you can’t explain it well to an audience, then no one ever knows what you did. I used to suffer from somewhat extreme social anxiety, though I didn’t know that’s what it was called at the time. If I had to present something in high school, my voice would quiver, and I needed to fully memorize what I was going to say (even if it was a phone call, which terrified me!). My mind would go blank if I had to ad lib at all. In high school, I got involved in drama (plays, mock trial, forensics). I found that it was easier to act than be my “real” self, and it also forced me to practice talking in front of a crowd. Even today, I subconsciously rely on “acting” when I talk to others—it’s like putting on your super suit and taking on the charismatic character that I don’t otherwise feel I am. The same goes for scientific

talks ... the more I “acted it out,” the more natural it came, and now I feel quite confident giving them. In fact, I’m frequently invited to give talks because people think I’m good at it—who would’ve guessed?

## **What is the most exciting/fulfilling part of your current job? What’s the most challenging part?**

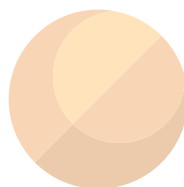
It’s always exciting when I manage to figure out some code that allows me to analyze my data. It’s often like being a detective, trying to figure out where the code is broken in order to fix it. I also enjoy being a part of teams; working as a team helps us make bigger leaps in scientific and technological advancement. The most challenging part of my job is juggling all of my tasks—I often feel I don’t have enough time to do everything I need or want to do, which requires me to prioritize things.

## **If you could give a piece of advice to your younger self, what would it be?**

Learn computer coding and take more advanced math. My high school did not offer these things, and I had very little coding experience prior to graduate school. I was self-taught and it was a steep learning curve—I felt like I was always trying to play catch-up. Now I use computer code every day to access and analyze satellite data.

## **If you could instantly learn any language, which would it be and why?**

I would like to learn Chinese, because my husband’s family from Singapore speaks various levels of English and Chinese combined. We’d love our 1-year-old daughter to be fluent one day as well.







# Chris Hartney

## Mechanical Design Engineer, Space Instrumentation Department

***Chris creates satellites for his job at The Aerospace Corporation. He has always enjoyed engineering and loves to play around in the machine shop using 3D printing and other manufacturing tools.***

### **What do you do, and how did you get here?**

I am an engineering specialist. I've been a part of The Aerospace Corporation for over 8 years and have mainly focused on developing hardware used in space—that means I manufacture things that will go into space! For example, sometimes I fabricate parts in the machine shop or work on optical components of satellites. I also collaborate with other engineers and scientists to develop software to control the flight of satellites.

As a kid, I really enjoyed studying math and solving complex problems. In college, I focused on mechanical engineering; after graduating, I wanted to find a hands-on engineering position instead of pursuing a master's degree, but the job market was difficult, as this was during the recession. I spent a year doing odd jobs to make ends meet, including working for the County of Elections office during the 2008 election and providing customer support for an online company. I eventually applied to several engineering schools, and luckily San Jose State accepted me into their Aerospace Engineering program. I had the opportunity to go to NASA Ames Research Center, where I learned a lot about small satellites and developed a passion for prototyping and 3D printing...and the rest is history!

### **What skills do you use on a daily basis?**

One skill I use is design. Our machine shop uses both traditional manufacturing methods (such as cutting metal or drilling holes into components) and 3D printing. It's actually a science to know each tool and how to use it to best manufacture each part. I spend a lot of time just considering HOW to create each thing. Since 3D printing lets you reduce the number of individual parts that need to be assembled, using it to design and manufacture takes a totally different thought process!

### **What is the most exciting/fulfilling part of your current job? What's the most challenging part?**

The most exciting part is that every day is something new. I typically have a good idea of what I'll be doing the next day, but not necessarily for the next week or month. It is always changing.

I work with many different companies and businesses, all of which are focused on new and exciting ideas for space. It's really interesting to get to work on some of these highly innovative ideas. The most challenging part is the complex engineering problems that arise on a daily basis. It is important for me to communicate with others so that we can collaborate on these complex problems to find solutions.

### **If you could give a piece of advice to your younger self, what would it be?**

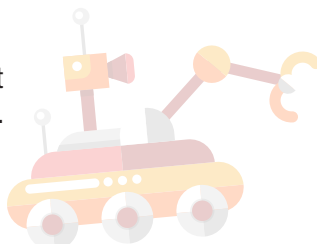
Throughout high school, I mostly kept to myself and didn't challenge myself much, or to explore and experience new things. I wish I had taken more risks and challenged myself in different ways. It wasn't until I was in college that I started to explore a bit more; I did a few internships, and they helped me get to know what real-world engineering and job experiences are like.

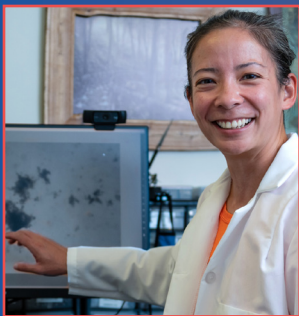
### **What is your favorite way to spend a day off?**

I like to wake up early in the morning and enjoy my coffee and read while listening to music on the vinyl record player I recently bought. In the afternoon, I like to get outside and go on either a hike or a bike ride around town. I own a road bike and an electric bike, so depending on what mood I'm in, I can go for a nice relaxing ride or a more strenuous one. In the evening, I enjoy cooking dinner. I'm also a big Philadelphia Eagles fan, so I watch a lot of football! And I'm always up to host a board game night if a few friends are available.

### **If you could instantly learn any language, which would it be and why?**

I would say Italian. For the longest time, I've been interested in traveling to Italy and exploring everything that country has to offer (especially the food).





# Andrea Hsu, Ph.D.

## Principal Scientist, Propulsion Science Department

*Andrea is a Principal Scientist with The Aerospace Corporation, and she is also passionate about the arts and video games. Learn how Andrea incorporates the arts into her job as a scientist.*

### **What do you do, and how did you get here?**

My official title is Principal Scientist, but I think of myself as a lab scientist or a research engineer. My focus is on launch failures—what went wrong, especially in the combustion of chemical propulsion and how we could prevent it from happening again. As a child, I was painfully shy and could often be found in a corner buried in science fiction books and fantasy novels. I loved to imagine what the future might be like, what technologies we might have, and how life would be like. Maybe we would have robotic bodies? Or we'd live on other planets? Or maybe we'd be able to talk with animals! Who knows?"

### **What skills do you use on a daily basis?**

I use many skills, but I think the most important one is resourcefulness. In my job, I accept that I know only what I know, and that I will need people more experienced than me—or that have expertise in areas outside my own—to help. I've grown to really like working in groups, and it's the varied skill sets that you find in a group that I believe make the team really effective.

### **What is the most exciting/fulfilling part of your current job?**

#### **What's the most challenging part?**

The most exciting part of my job is that it's ever-changing. As one of my mentors once told me, "I never knew what I would be working on in a few months, and when I was younger, I would panic and think I might run out of things to do...but at Aerospace, something always seems to come up, and you never know what the thing could be." And I have to say that after being here for 10+ years, I've never been bored.

### **What was your favorite subject in high school, and why did you love it?**

Hands down, art class. It taught me to be creative and think outside the box...and art is not so different from engineering and science.

### **What is your favorite way to spend a day off?**

My favorite day is a day that starts out with a hard workout, and ends with an abundant dinner with friends. Or I love a free day when I can be in my "cave" (home) making art and playing video games. Both are fantastic."





# Nahum Melamed, Ph.D.

**Project Leader,  
Embedded Control  
Systems Department**

***Nahum was greatly influenced by watching the Apollo 11 landing on the Moon as a child. Read more to learn how he took his love for working on machines to protecting Earth from asteroids!***

## **What do you do, and how did you get here?**

Listening live to the Apollo 11 landing on the Moon as a child in 1969 instantly expanded my horizon from the local neighborhood to interplanetary space. This event ignited a calling in me to learn about the physical universe beyond the earth's atmosphere, and to pursue a career in that field. My newly-acquired enthusiasm immersed me in academic research, and carried me onward to a career in outer space missions. Currently, I'm leading a team aimed at launching Artemis rockets to the Moon, and serve on a team of planetary defenders aimed at stopping an incoming asteroid from hitting Earth.

## **What skills do you use on a daily basis?**

I develop new mission concepts and use computer programs to make calculations on how to change the orbit of an incoming asteroid in deep space so that it doesn't hit Earth. I lead and coordinate the complex and evolving Artemis project by promoting good communication in my team and with other groups. (The Aerospace Corporation is contributing technical expertise in support of this international endeavor, led by NASA, to return astronauts to the moon by 2025.)

## **What is the most exciting/fulfilling part of your current job? What's the most challenging part?**

I'm at my best leading a team of experts that help in landing the next humans on the Moon, as well as contributing to the safety of our planet from space rocks. I must learn new technical and people skills to be able to perform my work and I consider myself a lifelong student adapting to evolving demands of my job.

## **What was your favorite subject in high school, and why did you love it?**

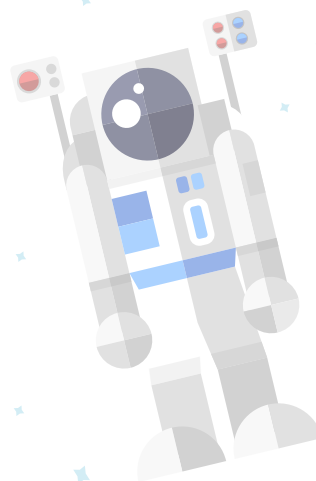
In high school, I loved working on mechanical machines, and hands-on learning, making and fixing useful devices. I also became interested in history after an in-depth study for a class paper.

## **What is your favorite way to spend a day off?**

I love visiting friends, hiking in nature, visiting museums, reading about advances in science and technology, and fixing faulty devices at home.

## **If you could instantly learn any language, which would it be and why?**

I would learn French because I love the way it sounds, because some world-class literature and philosophy were written in it, and because I would be able to have meaningful conversations when visiting French-speaking places.





# Navneet Mezcciani

## Associate Principal Director, Software Engineering

***Navneet grew up having never turned on a computer, and now leads a team of software engineers at The Aerospace Corporation. Read about her incredible life journey, and how her love of art has helped her along the way.***

### **What do you do, and how did you get here?**

I oversee a group of about 100 people involved in software engineering in space system defense.

I was born and raised in Bahrain. Growing up as a female, and even more so as an immigrant (my parents were Sikh immigrants from India), my trajectory to a US university was not straightforward.

As a child, I was always curious. I loved thinking about puzzles and how things fit together the way they did, how things worked. This trait made me especially interested in physics and math. I graduated early from high school at the age of 15 and came to the US for college. I had never turned a computer on in my life, but I chose computer engineering because of my obsession with understanding how things work!

As a foreign student in the US, a female in computer science, and someone younger than my classmates, I felt small and insecure. My classmates all seemed to know the computer terminology and jargon, whereas I felt I knew nothing. One of my teachers, a female who was an assistant dean, was a key influence. Her encouragement was critical, because she saw my work and believed I had the ability to go on. This teacher actually helped me get my first job in civil space working with NASA, where I got to work on a small elite team working on software for the space shuttle launch. Today, at Aerospace, I work on the defense side of space; things like sensors and surveillance systems, where I collaborate closely with the US Space Force.

### **What skills do you use on a daily basis?**

The skill I use most is systems thinking, that is, how things fit together. This can be applied to any system, from a satellite to a railway to a production line for cars. I've always liked thinking about puzzles and how things work and fit together, the way I often apply this is when I come across issues that need to be solved. I have to consider the original source of the problem to address it.

Another skill I use is looking at things as a whole and using that to make the best product possible. For example, if you were

to take all the best of the best parts—the best fuel injection system, the best engine—and put them together into one car, they wouldn't work seamlessly together. Sometimes, you have to make one specific part less than perfect, so that the whole thing works together better.

### **What is the most exciting/fulfilling part of your current job? What's the most challenging part?**

The most challenging part is the most exciting as well—there is so much change right now! Things like artificial intelligence and machine learning are coming into the field so quickly. Computer tools can analyze data that would take a human much longer to digest, which makes my work very exciting.

### **If you could give a piece of advice to your younger self, what would it be?**

Do not be limited by others' expectations of you. Don't let anyone else's read of your talent limit your expectations of yourself. I think we, as a society, tend to move so fast and not take the time to ask ourselves what would make us truly happy.

### **What is a social cause you care about?**

STEM education for disadvantaged girls. I often volunteer at schools in disadvantaged communities, and the students can't ever guess that I am a rocket scientist when I ask. I am passionate about showing that you don't have to look one particular way to be able to work in the STEM field. I want to dispel the myth that only boys go into engineering.

### **What is your favorite way to spend a day off?**

I love to read, dance (flamenco is my dance of choice), and work with my hands. I mostly do watercolor art, and my subjects vary. Right now, I am very into painting dancers. I like understanding the muscles and skeleton of the human body and how that influences shapes in dancers.







# Delilah Nunez

## Systems Director, Strategic Communications Systems

*Delilah's position at The Aerospace Corporation helps ensure satellites in space are able to receive messages from Earth. Read more to learn how movies influenced her career path!*

### **What do you do, and how did you get here?**

I am currently a Systems Director for the Strategic Communications Systems. I started out as an intern, and have worked in different organizations across Aerospace, developing my career and skills to support the work I do today. I oversee ground and system integration for communication satellites, ensuring that our ground systems here on Earth communicate with satellites in space.

Movies had a lot of influence on my career! I was first inspired to explore space when my dad took us to see Star Wars, and we were all excited about the future of space travel. I wondered how I could get to do that! The only thing I could think of was becoming an astronaut, but I thought there was no way I could be smart enough to do something like that. It just didn't seem like a career that someone like me could get. However, when I saw the movie War Games, I saw the power of what computers could do. I wanted to learn how to control things! So began my journey of becoming a computer engineer.

### **What skills do you use on a daily basis?**

My background is in computer engineering and developing software, so I mainly use engineering management skills to ensure that all the complex pieces we design can integrate seamlessly with each other into one system. I also spend a lot of time talking; I work with the government, contractors, my team, program managers, and many others. Being able to communicate and listen is something I do all day, and every day—and being a good listener helps me to understand the problem at hand, so I can help find a solution.

### **What is the most exciting/fulfilling part of your current job? What's the most challenging part?**

I have worked on some interesting projects over my career. When I first started my career, I worked on developing software applications to help improve work processes, and analysis

tools. Today, I lead a team of talented engineers to design ground control systems that communicate with satellites. It is always exciting to know that I had a hand in the development of missions, and launch is the most exciting part!

### **If you could give a piece of advice to your younger self, what would it be?**

As the first generation in my family to go to college, I really didn't know how to move forward after high school. College life and choosing a career seemed out of reach. I stumbled a lot, but I also pushed myself and got lucky...although sometimes, I talked myself out of things, and I now wish I hadn't. So, if I could, I would tell myself to have the courage to take chances. I would tell myself to not second-guess what I might be capable of. Each of us has our own superpowers—we all just need to find and nurture them.

### **What was your favorite subject in high school, and why did you love it?**

I was not academic in the slightest, but I LOVED dance. I took all the dance classes I could and was even on the dance team. I think it gave me that artistic outlet I needed that also opened the door for more creative thinking...not to mention that it was a great stress reliever.

### **If you could instantly learn any language, which would it be and why?**

Japanese. It sounds so beautiful and yet complicated. I speak Spanish as well as English, so learning Japanese would make me trilingual, which I think would be awesome. Japanese would also enable me to collaborate with others in the space industry who live in Japan. Not to mention that it'd be a big plus when I go out to Japanese restaurants. I love Japanese food!





# Will Santos

## Flight Loads Engineering Manager, Structural Dynamics Department

***Will studies how the vibrations of takeoff will impact a rocket at The Aerospace Corporation. Read more to learn how Will's love of sports teams translated to working on critical missions for the US government.***

### **What do you do, and how did you get here?**

When I was in school, I loved sports—baseball and football mostly. I loved being part of a team. I didn't know I wanted to be an engineer or work in space.

My grandparents came over from Mexico, so my parents' generation was the first to go to college. My uncle was the one in my family who everyone was proud of, and I really looked up to him, too. He was an engineer at Northrop Grumman; growing up, every time I saw a plane, I thought of him.

When I was in middle and high school, I liked thinking about how the physical world worked, especially molecules and other things that you can't see. I started college in chemistry, but doing lab work was too isolating for me; I wanted to be part of a team. In graduate school, I got into mechanical engineering, which I loved because I got that team aspect.

My current job is to assess rockets and satellites before they go into space. Launching a rocket takes a powerful explosion, and everything vibrates a lot. I model what we expect to happen on launch to make sure that the rockets won't break because of all the vibrations.

I love what I do, because I get to work as a part of a team to solve really complex problems, and because these problems are a part of important missions. Knowing that I'm doing something very impactful keeps me going when the problems are especially challenging, because I know I am serving my country and giving back.

### **What skills do you use on a daily basis?**

Physical modeling. I like going from an abstract picture—where I'm imagining what is happening to the rocket as it is lifting off—and translating that into mathematical equations that capture all the important aspects, and then translating that again into a computer simulation (a code that solves all those equations).

Another skill I use is building teams of people with a unique set of skills who work together to come up with solutions. I love

working with other engineers, and it is very rewarding to create a team that can find new ways to do things better.

### **What is the most exciting/fulfilling part of your current job? What's the most challenging part?**

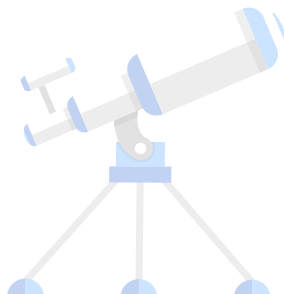
Solving challenging, important problems as a team. This is actually both my favorite part, and the most challenging part as well. In this job, you never get the right answer on the first try, and that's normal. Usually, if I just work on them a bit, I can find a solution, but some problems can be more persistent. It can be frustrating to feel like you are really stuck, but then I remember to reach out to my team to get other perspectives on the problem. Oftentimes someone comes up with a unique idea that helps solve it, leading to the best part where the team comes together to make this idea a workable solution.

### **If you could give a piece of advice to your younger self, what would it be?**

I'd tell myself that it's ok to not know what you want to be in middle school. I thought I needed to know where I wanted to be 20 steps ahead. If you look at my pathway, I have a lot of twists and turns to where I am today. Remember that you can always pivot past decisions you've made and shouldn't limit what you do today. Don't rule out being an engineer just because you think you've never been good at math. It's more important to figure out what you like to do and find ways to keep doing those things.

### **If you could instantly learn any language, which would it be and why?**

German. I would love to read Einstein's work in its original language.





# Lisa Sedares

## Integration and Test (I&T) Engineer, Radar Systems Engineering



***Lisa is a space system engineer for The Aerospace Corporation, the President and Music Director at a non-profit theater group, and a pianist. Read more to learn how she balances engineering and music in her life!***

### **What do you do, and how did you get here?**

I'm an aerospace engineer working on the NISAR (NASA-ISRO Synthetic Aperture Radar) mission. I joined my high school's robotics team on a whim, and realized that I really enjoyed building things with my hands and competing in engineering "sports." I don't think I ever would have joined the team if I had not been encouraged by my high school physics teacher! From there, I went on to take astrophysics and got really interested in space, leading me to apply for aerospace engineering programs for college. I took a detour to get my masters in piano performance (and have seriously considered writing a musical about rocket science), but an internship at NASA during my sophomore year in college really influenced my career! I've been working with NASA now for over 10 years and wouldn't change a thing.

### **What skills do you use on a daily basis?**

The number one skill I use every day is problem-solving. I might be working to solve a technical problem (like updating our flight software or adding a command to our database), or sometimes even a nontechnical problem (like streamlining communication protocols). Communication is also a really important skill, especially in the hybrid work environment. We use a variety of communication tools to get the job done, and sometimes it's important to use another person's preferred communication style when you're working to solve a tough problem.

### **What is the most exciting/fulfilling part of your current job? What's the most challenging part?**

Having just launched a satellite this month, I would say the most fulfilling part is watching the rocket go up, knowing that you worked on the hardware inside of it, and that it will achieve its mission. For me, working on weather satellites has always been fulfilling because I know that our satellites provide critical weather data that can help save lives. The most challenging part is when tensions between teams are high, due to high pressure situations like being behind schedule. The key is keeping in mind that we all have the same goal and need to work together to achieve it, no matter how difficult it might be.

### **If you could give a piece of advice to your younger self, what would it be?**

I would tell myself that middle school is only a blip in the rest of your life, and not to let anyone take away your joy. There was one mean kid in my math class who almost ruined my passion. Looking back now, it was such a small thing—but it is so hard when you are in the moment and can't see your future.

### **What is a social cause you care about?**

I'm really passionate about equitable education opportunities in the arts. Only 1 in 5 public schools in California have an arts program! I believe that creativity is an integral part of math and science, because sometimes solving problems is bigger than just following an equation; you have to think outside of the box. I enjoy volunteering for local STEM programs, such as FIRST Robotics, because that's where I discovered my passion for engineering. I also volunteer with summer theater and music camps because I think music is a great way to learn life skills such as teamwork, discipline, and communication.

### **If you could instantly learn any language, which would it be and why?**

I would love to be able to instantly speak French! It's a really beautiful language, both spoken and sung. I really want to go to Paris and be able to sit at an outdoor café, drinking coffee, eating a pastry, and talking to the locals about politics or art and life in general. A dream!

