

## Contact

lena.desantis@yahoo.com

[www.linkedin.com/in/lenadesantis](http://www.linkedin.com/in/lenadesantis)  
(LinkedIn)

## Top Skills

Human Factors Engineering

Systems Engineering

Heuristic Evaluation

# Lena Desantis

Senior UX Researcher at Shell  
Houston, Texas Area

## Summary

I am passionate about UX research, human factors & usability. I acquired my skills with Lockheed Martin at the NASA Johnson Space Center. I realized that UX research, when it was known as human factors and usability, was the career I had been searching for and decided to learn all I could about the field. I believe that everything a person interacts with can benefit from the application of sound human factors and usability principles.

I am a driven, motivated, and multifaceted professional with solid and progressive experience in human factors and usability testing at NASA and in the oil & gas industry for a combined 15 years – 7 years project management at NASA. I am willing to learn new skills and seek stretch objectives to achieve project & corporate excellence.

### Key Competencies:

- Leveraging user research techniques to understand the user's behavior, motivations, and pain points through contextual inquiries, work observation, and task analysis
- Developing and implementing usability testing methodologies to uncover user interface issues and determine user satisfaction and value added to the user's work flow
- Developing user experience evaluations based upon research goals and requirements, producing a final report to communicate results and recommendations to project team
- Project management and supervision – understanding when to employ user research and what techniques to use during the project lifecycle
- Synthesize user behaviors and the evaluation of the user interface to determine its organization and structure and assess the best fit for the user's work flow
- Create personas, user journeys, day in the life story boards to build empathy for the user and understand the context of their user experience

- Knowing that I am not my user, but I am the voice of the user
- Prioritizing the recommendations the user needs to create a delightful experience with the product, knowing what hill you are going to die on

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## Experience

### Shell

Senior UX Researcher

September 2018 - Present

Houston, Texas

Senior researcher investigating complex problems in lubricant sales and customer experience

### GE Oil & Gas

Senior UX Design Researcher

October 2016 - Present

### Aquent

UX Researcher

April 2017 - September 2018 (1 year 6 months)

Houston, Texas Area

Currently part of the UX Studio at Schlumberger, I am involved in the exciting IT Transformation Schlumberger is implementing. Many exciting projects to work on, usability testing to conduct, and users to interview. My favorite part of this assignment is going into the field and talking to the engineers, finding out what they do, their pain points. I'm working on a user experience journey map for wireline engineers who execute jobs in the Gulf of Mexico and storyboards for jobs executed in the San Joaquin Basin. Just completed a wonderful and exciting usability evaluation with 12 users!!! Six of the users were the primary users of the system (so excited to get so many!!).

### Aquent

UX Researcher

April 2017 - September 2018 (1 year 6 months)

Houston, Texas Area

## GE Oil & Gas

Senior UX Design Researcher

October 2016 - April 2017 (7 months)

Houston, Texas Area

I used my UX research skills and engineering background to decompose the content in the Predix application developed for the Columbia Pipeline Group and explain the different elements of the application. Some of the elements included cathodic protection, internal corrosion, and external corrosion.

## Apex Systems

Senior UX Researcher

July 2016 - July 2016 (1 month)

Brief, but fun, one month contract with ChaiOne.

Responsibilities included:

- Business process mapping for new customer enrollment
- Data analysis of survey responses to determine requirements for the customer enrollment website
- Journey mapping to determine the bottlenecks and roadblocks to customer enrollment, identify inefficiencies with the system

## PHS Concepts, Inc

Senior Human Factors Engineering Specialist

May 2013 - March 2016 (2 years 11 months)

I was a contractor for Bechtel. Bechtel, a company with over 100 years of construction experience was contracted by Chevron to build their crown jewel LNG plant - Wheatstone - in Northwest Australia. I worked on the design and construction of the plant. Started out reviewing vendor drawings and participating in 3D model reviews, progressed to vendor inspection trips and trips to the module yards to inspect the construction of the modules that were being shipped to Australia.

Responsibilities included:

- Reviewing skid/equipment drawings for compliance with the client human factors requirements and Australian regulations
- Vendor inspection trips to review the skid/equipment for compliance with project requirements, writing trip reports to summarize the findings from the inspection

- Utilizing Smart Plant Review to navigate the 3D model of the plant to ensure compliance with the client human factors requirements and Australian regulations
- Inspection trips to Module Fabrication Yards in Malaysia, Indonesia, and China to ensure compliance with project requirements
- Training of field engineers in the China and Indonesia Mod Yards on the client human factors requirements and Australian regulations
- Lead for maintaining and updating the deviation log which captured the HFE non-conformances that could not be corrected through redesign, including drafting deviations and reviewing deviations from other specialists, working with the client to ensure the administrative solution was adequately described

## Lockheed Martin

### Senior Human Factors Engineer

April 2003 - May 2013 (10 years 2 months)

#### Usability Testing & Analysis Facility

- Project Lead & Cost Account Manager (CAM) for UTAF Constellation Extravehicular Activity (EVA) human in the loop evaluations (supervised up to 3 employees)
- Human in the loop (HITL) usability evaluations of the Vehicle Integration Element (VIE) umbilical interface to the EVA suit, conducted in the full size mock-up of the Crew Exploration Vehicle (CEV)
- Heuristic and usability evaluations of a wrist mounted electronic procedure display for the planetary EVA suit, provided display layout recommendations to design team, developed and conducted usability evaluation
- Heuristic and usability evaluations of a head mounted electronic procedure display for the planetary EVA suit, provided display layout recommendations to design team, developed and conducted usability evaluation
- Integrated Human Factors Evaluation Process Lead for International Space Station (ISS) Payload Hardware (2006 to present) including verification of human factors requirements for ISS payload hardware, providing

recommendations for hardware design changes to comply with requirements, and providing recommendations to improve the usability of the hardware

- Baseline Operational Readiness (BOR) lead for the UTAF including equipment tracking, yearly inventory of equipment, and scheduling and coordinating software and hardware upgrades

- Coordinator for the Human Research Program (HRP) Planning, Programming, Budgeting, and Execution activities

- Developer/administrator for the HRP Management SharePoint site

### Johnson Engineering

#### Human Factors Engineer

December 1999 - April 2003 (3 years 5 months)

Usability Testing & Analysis Facility, October 2002 - April 2003

- Procedure format development for the Emergency Medical Procedures Project

- Assisted with pilot testing and qualitative data analysis on the Emergency Medical Procedures Project

- Assisted with the Magic Windows project, researched crew daily activities using an on-orbit schedule and procedure viewing tool

ISS Plug-in Plan Engineer, April 2001 - October 2002

- Generated pre-flight plug-in plans for the portable equipment on the International Space Station (ISS), both nominal and contingency, and posted to the IPIP web page

- Coordinated plans with Cargo Integration Office (CIO), Crew Health Care System, Human Research Facility, Marshall Spaceflight Center, and Electrical Power Team

- Presented plans to flight specific Joint Operations Panel and Increment Management Team

- Crew training on plug-in plan beginning with Expedition 3 through Expedition 6; created training materials specific to each Expedition, trained the crewmembers on their specific plug-in plan

ISS Trash Management, October 2000 - April 2001

- Assisted in baselining Management Plan for Waste Collection and Disposal (SSP 50481)

- Generated and maintained the Trash Assessment Spreadsheet

- Assisted in updating the Trash/Waste Hardware Catalog
- Assisted with the weekly telecons with International Partners (IPs)

Anthropometry & Biomechanics Facility, December 1999 - October 2000

- Project lead to return LIDO WorkSET dynamometer to operational readiness
- Assisted in biomechanical assessment of human performance in partial gravity and 1-g test conditions on NASA's Reduced Gravity Aircraft and in the Neutral Buoyancy Laboratory
- Obtained anthropometry and maximal isolated joint strength measurements on Astronaut Candidates utilizing goniometer and LIDOACT software

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## Education

Texas A&M University

Bachelor of Science (BS), Bioengineering and Biomedical Engineering · (1991 - 1997)

University of Iowa

Master of Science (MS), Biomedical/Medical Engineering · (1997 - 1998)