

A portrait of Leonardo Barreda, a young man with dark hair, wearing a blue button-down shirt. He is looking slightly to the right of the camera with a neutral expression. The background is a dark, gradient red.

Leonardo Barreda, 24  
Aerospace Engineer

1  
00:00:22,700 --> 00:00:21,050  
from Leonardo beretta and structural

2  
00:00:24,529 --> 00:00:22,710  
analysts in the polish insistence

3  
00:00:27,319 --> 00:00:24,539  
Department America Alvarez

4  
00:00:29,529 --> 00:00:27,329  
I work in turbomachinery design and

5  
00:00:32,510 --> 00:00:29,539  
development my name is Armando Martinez

6  
00:00:34,520 --> 00:00:32,520  
and I work with the year 40 which is the

7  
00:00:37,460 --> 00:00:34,530  
ground operations and logistics branch I

8  
00:00:39,020 --> 00:00:37,470  
work in the solid propulsion analysis

9  
00:00:41,689 --> 00:00:39,030  
team within the structures and dynamics

10  
00:00:43,939 --> 00:00:41,699  
analysis branch and I look at various

11  
00:00:46,460 --> 00:00:43,949  
projects such as the booster separation

12  
00:00:48,740 --> 00:00:46,470  
water currently being used on the Space

13  
00:00:50,869 --> 00:00:48,750

Shuttle as well as the all are settling

14

00:00:54,380 --> 00:00:50,879

motor which will be used in the Ares one

15

00:00:55,930 --> 00:00:54,390

so we typically support any rocket

16

00:00:58,639 --> 00:00:55,940

engines that have turbo pumps on them

17

00:01:01,459 --> 00:00:58,649

anything existing from you know Space

18

00:01:03,439 --> 00:01:01,469

Shuttle - now that requires a pump we

19

00:01:05,479 --> 00:01:03,449

what we look is like the requirements

20

00:01:07,040 --> 00:01:05,489

the checkouts that you have to do to be

21

00:01:09,020 --> 00:01:07,050

able to assemble this vehicle and make

22

00:01:09,740 --> 00:01:09,030

sure that each component communicated

23

00:01:13,940 --> 00:01:09,750

with each other

24

00:01:16,400 --> 00:01:13,950

my family's from Chihuahua Mexico I came

25

00:01:18,919 --> 00:01:16,410

here from University of Texas at El Paso

26

00:01:21,410 --> 00:01:18,929

I gotta do it with a Bachelor of Science

27

00:01:23,480 --> 00:01:21,420

in mechanical engineering I was born in

28

00:01:27,920 --> 00:01:23,490

Mexico and then when I was seven my

29

00:01:29,929 --> 00:01:27,930

parents for a better future I grew up in

30

00:01:32,120 --> 00:01:29,939

New Jersey in a city called West New

31

00:01:33,889 --> 00:01:32,130

York New Jersey and went to Penn State

32

00:01:36,679 --> 00:01:33,899

University and studied aerospace

33

00:01:38,870 --> 00:01:36,689

engineering I was recruited to come here

34

00:01:40,609 --> 00:01:38,880

into the the same Department on them now

35

00:01:43,130 --> 00:01:40,619

the propulsion systems Department and

36

00:01:44,899 --> 00:01:43,140

have been ever since I went to the

37

00:01:46,340 --> 00:01:44,909

University of New Mexico it was

38

00:01:48,649 --> 00:01:46,350

difficult at first because none of my

39

00:01:51,350 --> 00:01:48,659

brothers finished college or university

40

00:01:53,959 --> 00:01:51,360

side I kind of lacked that mentorship

41

00:01:56,149 --> 00:01:53,969

was like or finding the right way to get

42

00:01:57,679 --> 00:01:56,159

to where I wanted to go so for me it was

43

00:01:59,030 --> 00:01:57,689

just kind of taking classes because

44

00:01:59,690 --> 00:01:59,040

that's what I thought it was the right

45

00:02:01,719 --> 00:01:59,700

thing to do

46

00:02:04,279 --> 00:02:01,729

I've always wanted to work here even

47

00:02:05,870 --> 00:02:04,289

since I was in grammar school and when I

48

00:02:07,789 --> 00:02:05,880

was in high school you know we had an

49

00:02:09,469 --> 00:02:07,799

aerospace class and I took as many you

50

00:02:13,250 --> 00:02:09,479

know science and math classes as I could

51  
00:02:15,440 --> 00:02:13,260  
I ended up just loving it so you can't

52  
00:02:16,940 --> 00:02:15,450  
really find many other places that do

53  
00:02:20,060 --> 00:02:16,950  
the kind of work that you do here

54  
00:02:20,740 --> 00:02:20,070  
I mean you employ every single branch of

55  
00:02:22,960 --> 00:02:20,750  
engineer

56  
00:02:25,540 --> 00:02:22,970  
of science I mean name would degree and

57  
00:02:27,910 --> 00:02:25,550  
NASA has it here when I first got here a

58  
00:02:30,190 --> 00:02:27,920  
lot of the activity was Space Shuttle

59  
00:02:32,410 --> 00:02:30,200  
Hardware which is also exciting because

60  
00:02:34,510 --> 00:02:32,420  
it's already in flight and there's

61  
00:02:37,449 --> 00:02:34,520  
launches and launch activities and tests

62  
00:02:40,090 --> 00:02:37,459  
but doing something from the ground up

63  
00:02:42,280 --> 00:02:40,100

has been a big challenge and I mean I

64

00:02:43,810 --> 00:02:42,290

feel honored just to be able to be part

65

00:02:45,220 --> 00:02:43,820

of that and I like that it's always

66

00:02:48,370 --> 00:02:45,230

something different and you're always

67

00:02:49,990 --> 00:02:48,380

learning something new it annoys me when

68

00:02:51,280 --> 00:02:50,000

you see somebody saying you know I'm

69

00:02:53,410 --> 00:02:51,290

just gonna finish high school and I'm

70

00:02:55,210 --> 00:02:53,420

gonna go work when you know they might

71

00:02:57,160 --> 00:02:55,220

be the smartest person or you know they

72

00:02:58,570 --> 00:02:57,170

get good grades and they just limit

73

00:02:59,979 --> 00:02:58,580

themselves to just high school when

74

00:03:01,720 --> 00:02:59,989

there's greater opportunities and

75

00:03:03,550 --> 00:03:01,730

greater possibilities a little bit of

76

00:03:07,210 --> 00:03:03,560

sacrifice is worth it in the end and to

77

00:03:09,010 --> 00:03:07,220

me that's just in itself rewarding we

78

00:03:11,740 --> 00:03:09,020

really do have the best in the world

79

00:03:13,750 --> 00:03:11,750

working here in Marshall so it's a lot

80

00:03:15,340 --> 00:03:13,760

of fun it's exciting the important thing

81

00:03:17,470 --> 00:03:15,350

is to get good grades and do good in

82

00:03:18,610 --> 00:03:17,480

school and you can have that chance that