Luella Mae Armstrong

2019 Pathfinder Award Recipient in the Engineering Category

Filled with ambition, Armstrong always believed in her science and math skills. Growing up, Armstrong earned the support of her high school math teacher, who had encouraged her to pursue a career in engineering. She ended up enrolled in a mechanics class at her school, where she discovered her passions and succeeded amongst her peers. Armstrong graduated as valedictorian and took her missions further by studying engineering at the University of Washington.

She was the only woman in a class of 174 men. “Most of them were older than I was,” Luella explains. “They came from World War Two, they were on the G.I. bill, most of them had families, and they were very respectful. And they were very helpful. They kind of treated me like a younger sister.”

But there was one person who didn’t respect her: her conservative chemistry professor. Armstrong rose above his unwarranted criticism and her knowledge earned her a position at the UW Aeronautical Laboratory (UWAL). In fact, engineers from the Boeing Company were so intrigued by what Armstrong had accomplished at UWAL and guaranteed her a career upon graduation. Her dedication to engineering ultimately made her the only woman to graduate among 174 men in the UW Class of 1951, paving the way for future women graduates in the engineering program.

The Seattle Times published a story (pictured above) about Luella’s historic feat, with the paternalistic title “One Girl In Air Engineers Graduates With 174 Men.” In 2016, the Times ran a corrected story about Luella that occupied the entire front page. This time around the headline ran: “We Stand Corrected On 1951 Story: Engineering Grad, 21, Wasn’t A ‘Girl’ Among Men.”

Armstrong began her career at Boeing with a position in aircraft structural dynamics, later finding out that it was for the Boeing B-50D airdrop of a nuclear weapon. Armstrong continued to work there until she was dismissed due to a pregnancy. After taking time off for 22 years to raise three children, she decided that it was time for her to return to work, and she went on to build a health organization database and billing system.

Armstrong’s time spent raising children also included learning computer coding skills, so when she returned to Boeing, she met with the head of Boeing’s CAD/CAM division. With her self-taught knowledge of computers, she gained a reputation for being able to bridge the gaps between the younger and older generations at the company.

She received Boeing Medal of Recognition for outstanding research and development on B-52 updates, and retired with pride after 20 years. She is honored by students at the National History Competition on Engineering and the University of Washington, and is still living in Washington. At 89-years-young, Luella has and paved a pathway for future generations of women engineers.

Written by 2019 Pathfinder Interns, Natalie Briscoe and Megan Vuong