A Dream Realized: The Impact of STEM Programs on My Career

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Agenda

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What is STEM?
My Dream

Educational Background
  • Schools I Attended / STEM Impact

Professional Background
  • Companies I Worked For / STEM Impact

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Introduction

A LITTLE BIT ABOUT ME . . .

• Narida (Robertson) Dickerson (first name pronounced Nair-i-da)
• Current Title: Sr Manager, Program Management
• Years With Raytheon: 18+ (Anniversary = 5/24/2004)
• Years in the Aerospace & Defense Industry: 28+
What is STEM?

FROM MY PERSPECTIVE . . .

• STEM stands for Science, Technology, Engineering and Mathematics

• STEM programs & organizations seek to increase the number of underrepresented students in the fields of engineering, math and the sciences.

• STEM programs & organizations I have personally benefitted from include:
  
  • Academic Advancement Program (UCLA), Center for Excellence in Engineering and Diversity (UCLA)
  
  • Los Angeles Council of Black Professional Engineers (UCLA & Raytheon), National Society of Black Engineers (UCLA & Alumni)
  
  • Society of Women Engineers (SWE), Women of Color in STEM Conference (Raytheon)
My Dream

• Why did I want to become an Engineer?
  • Love Math
  • Enjoy Problem Solving
  • Want to use my technical skills to create, solve problems, and ultimately help others

• My Environment
  • Father was an Air Force Veteran (28 years of service, served as a Navigator in the Vietnam War & during the Cuban Missile Crisis)
  • Lived on Air Force bases until 8 years old, then my Father retired from Air Force and relocated our family to Rancho Cordova, CA
  • First person in my immediate family to attend a 4-year university

• My Dream
  • Go to college and earn a degree in Aerospace Engineering!
Educational Background

• List of Degrees Earned:
  • Undergraduate
    • University of California, Los Angeles (UCLA)
    • B.S. in Aerospace Engineering
    • Degree Received: 12/1992
  • Graduate
    • Loyola Marymount University (LMU)
    • M.S. in Engineering and Production Management (emphasis in Project Management)
    • Degree Received: 5/2006
    • Completed additional coursework in Systems Engineering Major on own initiative for additional professional development.
Education Background – STEM Impact

• Invited to join the UCLA Minority Engineering Program (MEP), now known as CEED (Center for Excellence in Engineering and Diversity)

• Program Benefits:
  • Summer Bridge Programs
  • Academic Counseling
  • Internship Opportunities (Lockheed, Hughes)
  • Scholarship Opportunities (Chevron, Hughes, Los Angeles Council of Black Professional Engineers)
  • Toured of various aerospace companies e.g., Hughes (now Raytheon & Boeing), JPL, Lockheed, McDonnell Douglas, Rocketdyne and TRW
  • Network of like-minded people who had similar goals and with whom I have made life-long friendships

*STEM programs exposed me to the world of engineering and provided educational tools to maximize my success.*
Education Background – STEM Impact

• In addition to MEP, I also participated in the Academic Advancement Program (AAP) and the National Society of Black Engineers (NSBE).

• What is AAP?
  • AAP assists individuals who are first-generation college students, from low-income families or from underrepresented populations to achieve academic excellence through academic advising, collaborative learning workshops, mentoring, summer bridge programs and scholarships.

• Worked as a Math Tutor for AAP
  • Began tutoring as a Freshman
  • Tutored Calculus for Life Science students
  • Tutoring for AAP allowed me to share my love of Math with others and financially provide for my education

*Working for AAP was a way I could “Pay it forward” to my peers.*
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Education Background – STEM Impact

• What is NSBE?
  
  • NSBE is one of the largest student-governed organizations in the country. Founded in 1975, the organization is dedicated to the academic and professional success of African-American engineering students and professionals. NSBE’s mission is “to increase the number of culturally responsible black engineers who excel academically, succeed professionally and positively impact the community.”

• NSBE-UCLA Key Accomplishments:

  • Freshman of the Year, Leadership Conference Chair, Chapter 1st Vice President, Chapter President
  
  • Southern Vice Chair (Region VI)

• Following Graduation, I relocated to Texas and continued my involvement with NSBE as an Alumni member.

  • Leadership positions held:

    • Alumni Vice Chair (Region V)
    
    • Alumni Chair (Region V)

NSBE allowed me to develop leadership skills and contribute to my community while preparing for a career as an Engineer.
Professional Background

• Internship at Lockheed
  • Located in Burbank, CA
  • Summer internship after my 2\textsuperscript{nd} year
  • Learned CATIA and worked assisting a Design Engineer
  • Applied for internship through MEP

• Internship at Hughes Space and Communications
  • Located in El Segundo, CA
  • Summer internship after my 4\textsuperscript{th} year
  • Assisted Design Engineer with Thermal Blanket design changes (EOs)
  • Obtained internship as a benefit of receiving a Ron McNair Hughes Scholarship
    • Being a McNair Scholar, I also had the opportunity to visit Hughes headquarters and meet the CEO at the time, Dr. Malcolm Currie.
Professional Background Continued

• Bell Helicopter, Textron (1993 – 1996)
  • Worked as a Design Engineer in the Airframe & Rotor Design Departments
  • Met Bell Helicopter recruiter at a NSBE National Conference Career Fair

• Hughes Space & Communications/Boeing (1996 – 2004)
  • Worked as Design Engineer & Design Engineer Lead for the Specialty Products Department
  • Met Hughes Recruiter at a Job Fair in CA that was advertised in a NSBE Alumni newsletter
    • Designed Thermal Blankets for a large-scale satellite program
    • Designed, tested, and mechanically integrated pyrotechnic devices and launch locks for several commercial and government satellite programs
    • Notable commercial programs – DirecTV, HughesNet, XMRadio (Now SiriusXM)
    • Exposed to manufacturing operations and “womb to tomb” accountability
    • Learned how various functional groups interact to create a product

• Raytheon Intelligence & Space (2004 – present)

Networking via STEM events allowed me to secure more challenging professional opportunities.
Programs I Have Supported

- TDRS (SATELLITES)
- B2-RMP (RADARS)
- GLOBAL HAWK BLK 10/30 (SENSORS)
Professional Recognition

RAYBEN
KEEPER OF THE DREAM

LACBPE

WOC IN STEM TECHNOLOGY ALL STAR
Closing Thoughts

• Looking back at my nearly 30-year professional career, I am extremely proud of my accomplishments, tenacity, and drive to always do my best.

• What started out as a dream at a relatively young age has translated into a great adventure of problem solving, travel, exploring new cultures, and a consistent commitment to serving my community.

• STEM programs created a foundation that allowed me to realize my dreams and my experiences exceeded my initial expectations.

• Feel the fear and do it anyway. Do it scared and think outside of your comfort zone – that is where true growth is.

• I’m looking forward to what the next phase of my career brings.
The way to get started is to quit talking and begin doing.

Walt Disney
Thank You

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