Aethyr Villela

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EDUCATION

The University of Texas at Austin **May 2026**

Bachelor of Science, Biomedical Engineering, Concentration in Instrumentation & Imaging

Relevant Coursework: Biomedical Engineering Signals and Systems Analysis, Micro and Nanotechnology for Sensors, Introduction to Numerical Methods

PROFESSIONAL EXPERIENCE

***Project Management Intern,* Project Advance Austin (PAA)** **Aug 2024 - Present**

• Collaborating with SpineHope and a team of UT students to design an educational curriculum, website, and interactive activities to simplify spinal conditions for children and promote body positivity

• Earned IBM Project Manager Certification, demonstrating expertise in project coordination

***Happy Sneeze Remote Extern*, Extern** **Jun 2024 - Jul 2024**

• Conducted market analysis regarding the femtech industry for HappySneeze and established strategic criteria to successfully identify 3 potential partners

• Developed a targeted stakeholder engagement strategy, delivering a comprehensive technical report with actionable partnership recommendations

***AI/ ML Intern,* Crown Castle** **May 2024**

• Developed a computer vision AI/ML model using Python, Docker, Linux, and TensorFlow to detect brain tumors with a 71% validation rate, showcasing expertise in data analysis

• Created and maintained detailed documentation throughout project lifecycle, ensuring alignment with industry standards

***Engineering Design Intern,* Worcester Polytechnic Institute (WPI)** **May 2023 – July 2023**

• Engineered a Portable Water Purification System using SolidWorks, addressing global health challenges through innovative design

• Collaborated with faculty and industry experts through weekly biomedical engineering seminars, strengthening technical and problem-solving skills

CAMPUS INVOLVEMENT

***Vice President External*, Biomedical Engineering Society (BMES)** **May 2024 – Present**

• Founded BMESim, enabling BMES members to view, participate, and conduct outreach through Dell Children's medical simulation program

• Executed a Case Competition – increased team participation by 67% compared to last year

• Organizing a Career Night panel, contributing to the professional development of over 200 BMES members

***Ramshorn Scholars Program (RSP) Manager*, Cockrell School of Engineering** **May 2024 – Present**

• Oversee a team of 8 mentors, guiding 24 first-year engineers through academic and professional development

• Implementing process improvements and project management strategies, optimizing program efficiency and student

PROJECTS

2025 National Medical Device Make-A-Thon Competition **Feb 2025**

• Won First Place in preliminary round for an innovative low intensity ultrasound solution for osteoarthritis

• Ranked 6th nationwide after presenting a comprehensive market analysis and regulatory strategy for medical device commercialization

SKILLS & HONORS

Technical Skills: Python, MATLAB, C++, R, Fusion360, SolidWorks, Microsoft Office Suite

Certifications: 3D Printing, Laser Cutting, IBM Project Manager

Honors: Hispanic Scholarship Foundation Scholar, ULN Scholar, Ramshorn Program Scholar