Julian Martinez

Toa Alta, Puerto Rico

Bilingual: Fluent in English and Spanish

WORK EXPERIENCE

University of Maryland - ESTEEM / SER-QUEST Program - Research Intern

Maryland, USA

- Designed and tested oil-water separation mesh with superhydrophobic/oleophilic materials.
- Delivered working prototypes using SolidWorks and 3D printing; awarded 1st place in national innovation competition.
- Findings integrated into environmental oil spill cleanup processes used by Barcasa.

Spots App - Founder & Lead Developer

Puerto Rico | 2023 - Present

- Built full-stack mobile app using React Native, Firebase, and geolocation-based UX.
- Designed social memory system using user-tagged photos, challenge cards, and map-based interaction.
- Managed deployment pipeline, Firebase data structure, performance and bug testing.

Pharmaceutical Company - Engineering Support Intern

Puerto Rico

- Assisted in pharmaceutical manufacturing workflows, SOP design, and efficiency testing.
- Participated in equipment verification and documentation process for FDA compliance.

VEX Robotics - International Team Competitor & Mentor

Puerto Rico / Global

- Led robotics team to Top 30 globally out of 16,000+ teams in world championship.
- Designed autonomous competitive robots and developed advanced control logic.
- Mentored high school and university-level students in robot design and team strategy.

EDUCATION

Inter American University of Puerto Rico - Bayamon

Bachelor of Mechanical Engineering, GPA: 3.2 | Expected: Dec 2025

Pennsylvania State University

Aerospace Engineering Studies | Completed foundational coursework, 2017-2018

ACHIEVEMENTS

- Winner of University of Maryland Innovation Symposium for breakthrough research on oil separation mesh.
- Finalist at VEX World Championship, placing Top 30 globally out of 16,000+ teams.
- Launched and managed Spots, a location-based social app built using Firebase and React Native.
- Recognized on the Dean's List for Academic Excellence (2 Semesters).

SKILLS

Technical skills: SolidWorks, AutoCAD, ANSYS (Thermal/FEA), 3D Printing, Python, JavaScript, C++, MATLAB, Prompt Engineering (Claude/GPT), SQL, Firebase, React Native, PostgreSQL, REST APIs, Replit, N8N.

Soft skills: Agile & Scrum, Project Management, Problem-Solving, Cross-Functional Collaboration, Fluent Bilingual Communication, Leadership, Hardworking.