# William Acquaviva



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#### Education

Georgia Institute of Technology
Bachelor of Science in Mechanical Engineering

Atlanta, GA Expected May 2027

3.93 GPA | 4.0 Core | Faculty Honors

**Experience & Projects** 

## Raytheon (RTX) - Patriot Missile Team Intern

May 2025 - August 2025

## Critical Sub-Assembly Prototype

- o Collaborated on redesign of critical Patriot Missile sub-assembly; ran 30-part tolerance stack for fit
- o Designed, built, and tested circuit card assembly (CCA) prototype to validate fit, iterate design, and guide engineering teams
- o Conducted DFM reviews with manufacturing engineers, identifying 5 critical issues to improve efficiency and reduce cost
- o Updated technical drawing specs for widely used standoff (9 per assembly), leading to 95% reduction in supplier-errors

#### Other Raytheon Assignments

- Calculated and verified center of gravity of major Patriot assembly within ±0.1 lb for optimal mass distribution
- · Accelerated circuit card testing by designing 3 unique custom fixtures, which eliminated post-installation heat cycle failures
- o Managed engineering change requests for Patriot shelters, ensuring strict configuration control and 100% BOM accuracy

# Battle Bots Team Member January 2024 – December 2024

- Collaborated with a team of 10 to design, manufacture, and operate a 5 lb functional RC robot with \$500 budget
- Leveraged material science & 3d-printing techniques, creating a replaceable, \$15, 115 oz, robot shell solution to fit the budget
- Designed and manufactured 2 adjacent steel teeth mounted to shell, maximizing kinetic energy transfer and concentrating impact forces
- Ensured adherence to strict center of gravity requirements due to central axis rotation of "shell spinning" weapon

## HyTech Racing, Controls Sub-Team Member

August 2024 - December 2024

- Developed and integrated driver interface systems, including steering wheel inputs, braking systems, and pedal assemblies
- Monitored and optimized key vehicle systems such as differential inputs, suspension, and torque vectoring
- Utilized data acquisition platforms to drive design enhancements

Plate Pulse - Founder May 2025 - Present

- · Developed a cross-platform social media application using React Native to connect the automotive enthusiast community
- Implemented license plate lookup by integrating a third-party DMV API with a secure end-to-end data encryption
- Assembled team of software engineers and marketing personnel to boost app's market visibility and drive user acquisition

#### Real-Time Interactive Livestream Service Program

January 2024 - May 2025

- Developed a Python software solution enabling real-time interactions between TikTokLive and other clients
- Enhanced skills in Python programming, API integration, software development, and problem-solving
- · Established a monetization strategy by defining service tiers and pricing based on feature value and user feedback

# Leadership & Collaboration

#### Manager and Mechanic at Freedom Boat Club

May 2021 - April 2025

- Executed maintenance on fleet of 53 boats, including lower engine swaps, prop shaft repairs, and oil changes
- Managed shifts for 40+ employees, optimized skills, interacted with members, and handled general management duties

# Lambda Chi Alpha Founder & other Student Organizations

August 2023 - Present

- Co-founded a new chapter of Lambda Chi Alpha at Georgia Tech, growing membership to over 100 members
- Active member of the Georgia Tech Running Club, Intramural Soccer League, Create-X

#### Skills

Programming: MATLAB, Python, React Native, C++, Java, TypeScript, HTML/CSS/Javascript, Git

Technical: AutoCAD, Fusion 360, SolidWorks, Catia, Creo Parametric, Windchill PDM, FEA (SolidWorks)

Machinery: Waterjet, CNC, 3D Printing, TIG & MIG Welding, Bed Lathe

Course Work: Thermodynamics, Fluid Mechanics, Deformable Bodies, Dynamics, Design and Manufacture, Creative Decisions & Design