Cole Hewitt

(225) 828-8148 | chewitt2@tulane.edu | linkedin.com/in/cole-hewitt | Gonzales, LA

SUMMARY

I am a motivated honors student at Tulane University pursuing a degree in Engineering Physics. I am eager to secure a 2026 summer internship in mechanical/aerospace engineering where I can apply the knowledge I have gained in class and the experiences I have developed through previous mechanical engineering work on innovative and meaningful projects.

EDUCATION

Tulane University, **School of Science and Engineering** — **New Orleans, LA**
Bachelor of Science in Engineering — *Expected - May 2028*
Major: Engineering Physics (ABET-Accredited) – Minor: Mechanical Engineering – GPA: 4.0
Honors: Louisiana Excellence Award (Full-Tuition Academic Scholarship), Honors Society, Dean's List (All Semesters)

EXPERIENCE

AWC, Inc. — **Baton Rouge, LA**
Automation Engineering Intern — *May 2025 – August 2025*

- Gained experience with Programmable Logic Controllers (PLCs), Human-Machine Interfaces (HMIs), Variable Frequency Drives (VFDs), and pneumatic sensors/actuators through structured labs, client systems, and real-world capstone projects
- Designed (SolidWorks), prototyped, and programmed a modular industrial air quality and safety system within a 1-month timeframe, integrating pneumatic sensors with PLC and HMI technology to enable end users to detect pressure, flow, temperature, and humidity issues before they cause costly damage to downstream actuators
- Supported teams of 10+ member professional application engineering teams by assisting in the design, implementation, and troubleshooting of industrial systems for 20+ clients in the refinery, maritime, and aerospace industries

Tulane University's Scot Ackerman MakerSpace — **New Orleans, LA**
Fabrication Technician — *August 2025 – Present*

- Supported students in safely and effectively using the metalshop, 3D printing, woodshop, and laser cutting equipment, offering guidance on tool operation, fabrication best practices, and personalized project conceptualization
- Performed weekly maintenance, cleaning, and calibration to keep all MakerSpace manufacturing equipment safe and in optimal working condition for students and community members, reducing equipment tag-outs by 15%

Group Engineering Project - Desktop Wind Tunnel — **New Orleans, LA**
Mechanical Design & Analysis Engineer — *August 2025 – December 2025*

- Designed and manufactured a customizable desktop subsonic wind tunnel for quick and inexpensive aerodynamic testing and performance characterization of 2D and 3D models under varying flow conditions and fog distribution patterns
- Developed analytical and computational models using MATLAB to simulate velocity & lift/drag forces acting on a model, static pressure gradients based on cross-sectional area differentials, and flow direction/uniformity within the test chamber
- Utilized CAD (Fusion 360) for full-system design and applied engineering drawings with basic GD&T principles to ensure accurate part fit, alignment, and reliable assembly using 3D printing, CNC milling, and CNC Lathing
- Conducted iterative prototype testing to refine tunnel geometry, minimize flow separation, and maximize ease-of-use and functionality, while driving down the cost of production by 25% from the original estimate

Independent Engineering Project – Automated Coin Sorting System — **New Orleans, LA**
Mechanical/Electrical Design Engineer — *February 2025 – May 2025*

- Engineered a compact, fully 3D-printed, Arduino-powered coin sorter capable of counting and sorting over 350 coins per minute at a fraction of the cost of comparable commercial systems
- Programmed and integrated IR sensors, stepper motor control, and an LCD interface to enable real-time coin detection, counting, and an intuitive display for users to determine the state of the system
- Applied CAD (Fusion 360), MATLAB simulation, Arduino IDE C++ programming, and iterative prototyping to design a screw-free, snap-fit system with an automatic pause and resume feature for easy transfer of sorted coins into bank sleeves

EXTRACURRICULARS

Tulane University Rocketry Club — **New Orleans, LA**
Founding Member — *August 2025 – Present*

- Collaborate on design, testing, and launch planning as part of Tulane's first student rocketry team

Tulane University Orchestra — **New Orleans, LA**
Clarinetist — *August 2024 – Present*

- Perform in weekly rehearsals and concerts, contributing to ensemble cohesion and campus arts

Makers and Robotics Society — **New Orleans, LA**
Event Supervisor — *August 2024 – Present*

- Organize and oversee hands-on robotics and fabrication workshops for 50+ student participants

Tulane Housing and Residence Life — **New Orleans, LA**
Resident Advisor — *August 2025 – Present*

- Lead 30+ residents through community programming, on-call duty, and bimonthly individual meetings

SKILLS

Technical: CAD (Autodesk Fusion 360), FEA, Product Design, GD&T, 3D Printing, Laser Cutting, Wood and Metal Manufacturing, Industrial Electronics, Circuit Design, Arduino IDE, MATLAB, Microsoft Office Suite, Data Analysis, Adobe Suite (Illustrator, Photoshop)