

Summary

I am a high caliber senior engineering student graduating with a bachelor's degree, seeking an engineering design position in which I can work on innovative projects that push beyond limitations, using my extensive technical skills and teamwork abilities.

Education

LOUISIANA STATE UNIVERSITY (LSU) 2021-2025

- 4th Year Senior, Bachelor's degree
- GPA: 3.40 (as of: end of Spring 2024)
- Major: Mechanical Engineering
- Minor: Aerospace Engineering
- On track to graduate in 4 years, versus the common 5-year route.
- Formula-SAE contributor

SOUTH TERREBONNE HIGH SCHOOL | 2017-2021

- Graduated third in my class with a 4.3 GPA
- Student council member and representative
- Drama/Theatre club lighting and audio manager
- Yearbook Editor-in-Chief for 2 years

Work Experience

COMPANY: SYNCOM SPACE SERVICES

ROLE: **ENGINEERING INTERN** – DATE: 6/2024 - 8/2024

LOCATION: NASA MICHoud ASSEMBLY FACILITY

- Worked with the facility maintenance engineering team to maintain and improve NASA's Michoud Assembly Facility (MAF) via Facility Condition Assessments (FCA), inspections, and hands-on equipment repair.
- Data management, sanitation, and reporting (Maximo)
- Independently researched high-end equipment for procurement, including quotes from domestic and international companies, research compiling, and presentation

COMPANY: VALLOUREC TUBE-ALLOY

ROLE: **ENGINEERING INTERN** – DATE: 6/2023 - 8/2023

LOCATION: HOUMA, LOUISIANA

- Singlehandedly designed a pipe tip phosphator system, improving an integral part of oilfield piping manufacturing, both in safety and convenience. Construction of the design has been completed.
- I used Python programming in Fusion 360 to assist in the design and creation of numerous part designs with varied sizes.
- My supervisors loved my work, and I loved doing it!
- "It works perfectly" – Supervisor Jody Hebert

COMPANY: ALPINE SLIDE - BIG BEAR LAKE CALIFORNIA

ROLE: RIDE OPERATOR – LOCATION: BIG BEAR LAKE, CA – DATE: 6/2022 - 8/2022

Personal Traits/Facts

- Committed to exceptional safety
- Team player, very friendly
- Fast learner
- Determined to succeed, scrappy
- Great at time prioritization
- Forward thinking
- Inventive problem solver
- Strong communicator
- Comfortable around heavy industry & machinery

Skills:

Office:

- Excel, Word, PowerPoint
- Microsoft Teams

CAD Software & Graphics:

- Solidworks
- Autodesk Fusion 360 (veteran user)
- Blender (skilled)
- Adobe Photoshop (veteran user)
- Adobe Illustrator

Other Software:

- Autodesk CFD
- FluidX3D Transient CFD Simulation
- Autodesk Eagle PCB design
- Ansys FEA, and Ansys CFD

Software Development:

- C#: GUI applications
- C++: microcontrollers (high skill)
- Python
- MATLAB & Simulink (high skill)
- Microsoft Visual Studio
- Linux
- Excel VBA
- LabView

Areas of Experience:

Mechanical & Aerospace Engineering

- Automotive Restoration & Repair
- 3D Automotive Design
- UAV design and construction
- FEA, CFD, Modal Analysis
- Composites Embedded Sensor Design
- Instrumentation Design
- Strain Gauge Design
- Custom 6-DOF Flight Simulation
- Custom 3D printer design
- Effective 3D printing slicing
- Virtual lighting simulations
- Concept art design
- Analytical process design
- Exceptional Math Skills

Electrical Engineering:

- Schematic and board design
- Circuit troubleshooting
- 3 phase motor control design

Leadership

- Led numerous teams throughout my time in high school and college, including my multidisciplinary capstone design team (MEs and EEs)
- Am a highly effective, considerate, and proactive team leader

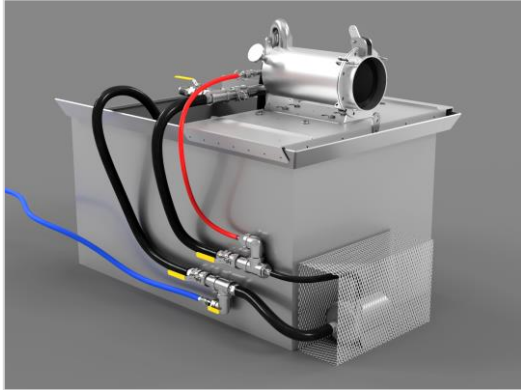
Manufacturing and Economy

- Experience working with lathe, mill, hand tools, MIG Welding, etc.
- Experience with purchase orders, cost saving, and large part assemblies
- Composites Manufacturing

Portfolio Highlights

PIPE PHOSPHATER - FOR VALLOUREC IN SUMMER 2023

I designed this device for Vallourec Tube-Alloy in Houma, and it was then constructed.
“It works perfectly” according to my supervisor.

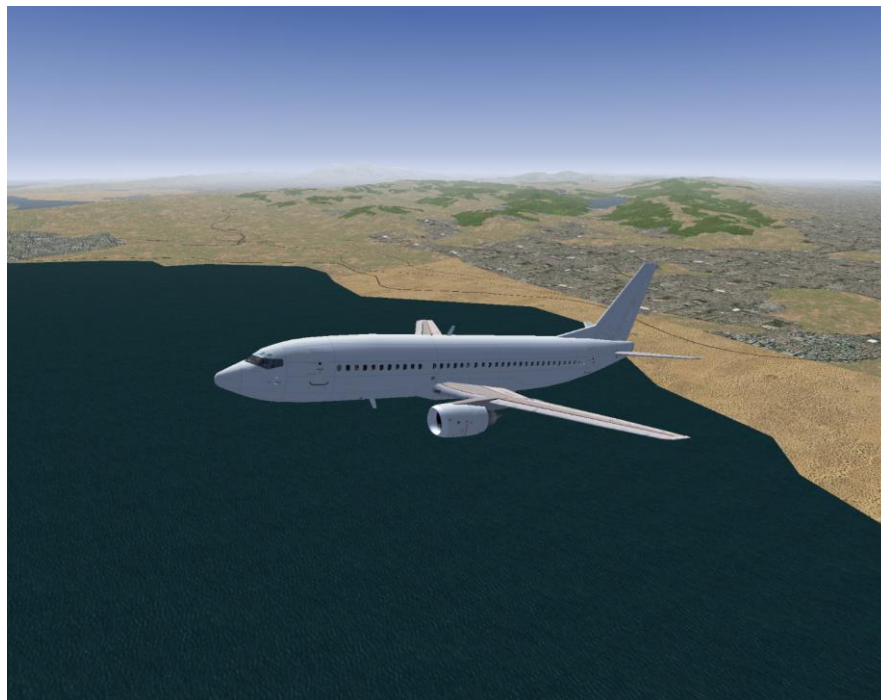
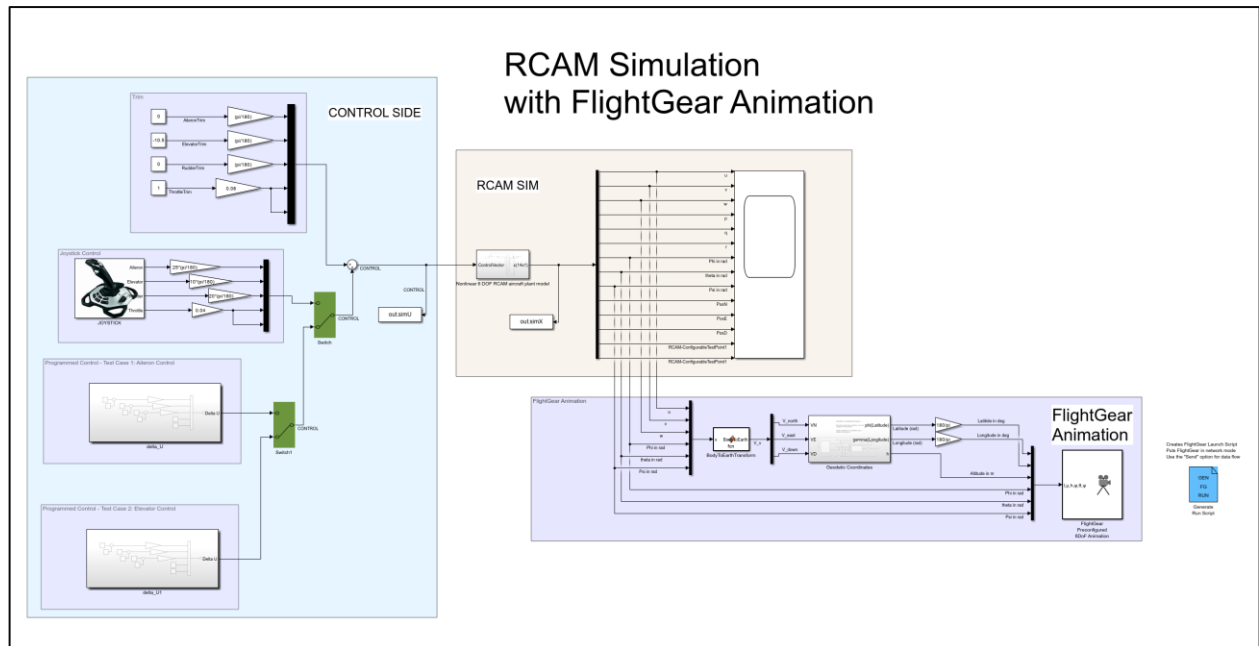


SYNCOM SPACE SERVICE INTERNSHIP AT MICHLOUD ASSEMBLY FACILITY, SUMMER 2024

During my time with Syncom, I worked with the facility maintenance engineering team to maintain and improve NASA's Michoud Assembly Facility (MAF). I was fortunate to be able to see the rollout of Artemis 2's Core Stage. I (far left), am standing with my facility maintenance engineering colleagues. I greatly enjoyed working with them!



6-DOF AIRPLANE FLIGHT SIMULATION IN MATLAB





1993 MITSUBISHI 3000GT VR4 My Long Term Personal Project Car

Well-known for being one of the most advanced cars of the early 90s, this car is something I'm quite proud of. It's taken actual blood, sweat, and tears from me over the 8 years I've owned it, but I can't help but love it; It's mine, and I made it so, including an engine pull, suspension swap, and more. Also, the concept car below is based on it.

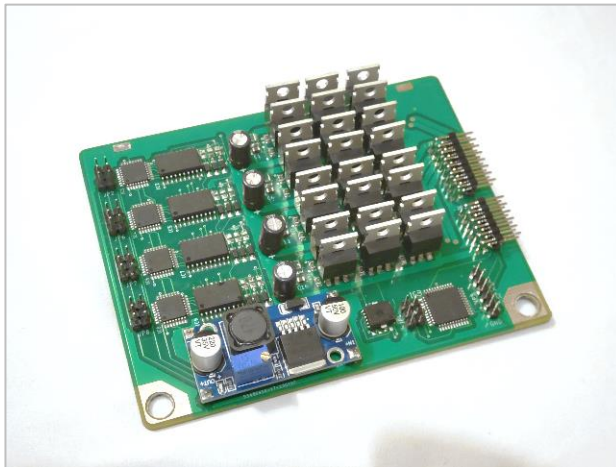
3D MODELED CONCEPT CAR RENDERS (FULLY DIGITAL) - FUSION 360 + BLENDER



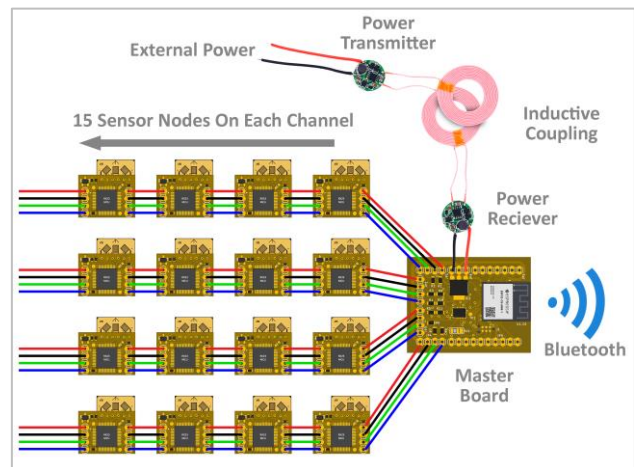
CUSTOM: REMOTELY CONTROLLED ULTRALIGHT AIRPLANE, 5FT WINGSPAN



ACTIVE-SUSPENSION COMPUTER QUADRUPLE 3-PHASE MOTOR DRIVER



STRAIN GAUGE SENSOR NETWORK FOR SENIOR DESIGN



See my website for more at jonheb.com