

Christian E. Viteri

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Current Mission

I am a 3rd year undergraduate seeking a design role in electromechanical systems and robotics (May/June – August 2022).

EDUCATION

Massachusetts Institute of Technology

Cambridge, MA

Candidate for B.S. in Mechanical Engineering with a Concentration in Control, Instrumentation, and Robotics | GPA 4.9/5.0

May 2023

Concentration in Comparative Media Studies - Film

Leadership: Varsity Football – Inside Linebacker; Phi Beta Epsilon – Risk Manager, Literary Chair, Kitchen Manager

- **Relevant Coursework:** Mechanics and Materials | Numerical Computation for Mechanical Engineers | Dynamics and Control | Fundamentals of Programming in Python | Design and Manufacturing I | Electronics for Mechanical Systems | Measurement and Instrumentation | Thermal-Fluids Engineering I | Introduction to Machine Learning

Walt Whitman High School

Huntington Station, NY

Graduated with Advanced Regents Diploma | GPA 101.87/100 weighted | SAT: 1520/1600

June 2019

EXPERIENCE/RESEARCH

Emvolon/Plasma Energy Innovation LLC | Full Time Mechanical Engineering Intern

Cambridge, MA | June 2021-Aug.2021

- Designed, analyzed, and modeled three separate mechanical alterations within a single cylinder combustion engine to meet compression and dwell time specifications.
- Presented SolidWorks designs and mechanical analysis with recommendations for future design choice and prototyping.
- Authored provisional patent for proposed research.

Van Rees Lab | Undergraduate Researcher

Cambridge, MA | Feb. 2021-May 2021

- Constructed surrogate models/ML algorithms to predict aerodynamic loadings as a function of input shape and flow conditions with SMT python package in 2D flow simulations with special focus on Radial Basis Functions and Kriging.
- Generated a multitude of pressure profiles and structural profiles using XFOIL.

MIT Department of Mechanical Engineering | Undergraduate Researcher

Cambridge, MA | Dec. 2020-Feb. 2021

- Constructed dynamic and kinematic profile for single cylinder internal combustion engine within MATLAB.
- Utilized SolidWorks Motion Study to analyze piston kinematics, researching possible mechanical alterations.
- Developed MATLAB script developing custom piston position profiles, mapping results for CAM development.

Unique Electric Solutions | Full and Part Time Mechanical Engineering Intern

Saint James, NY | May 2020-Jan. 2021

- Developed SolidWorks models and drawings of custom sheet metal components for an electric UPS vehicle and a hybrid Freightliner Cascadia truck, working with complex SolidWorks assemblies and obtaining design requirements from Mechanics and Electrical Engineers.
- Led development of technician's manual in accordance with CARB standards for installation of a 5-level rack for Hybrid EV transition.
- Promoted accessibility, ease of part organization, and reorder tracking in transitioning to Odoo for BOM information.

PROJECTS

PID Motor Controller and Motor Encoder

2021

Research on Deterioration of Football Cleats

2021

Star Wars Mandalorian Helmet in SolidWorks

2020

AWARDS

MIT 2.007 Robot Competition Top 32 Competitor | "The Right Stuff" Design Award

2021

NEWMAC 2020-21 Football Academic All-Conference

2020

Thomas Cutinella Memorial Leadership Award

2019

SKILLS AND INTERESTS

Skills: Python | MATLAB | SolidWorks/CAD | Microsoft Office | Odoo | Mill | Lathe

Hobbies and Interests: Film | Piano | Football | Powerlifting | Design