Fabrizzio Vega

Undergraduate Student linkedin.com/in/fabrizziovega
University of Illinois at Urbana-Champaign fvega7@illinois.edu

EDUCATION

University of Illinois at Urbana-Champaign Urbana, IL
B.S. Mechanical Engineering Aug. 2019 – May 2024 (Expected)
Coursework: Heat Transfer, Fluid Mechanics, Thermodynamics, Energy Conversion Systems GPA: 3.83/4.0

EXPERIENCE

Argonne National Laboratory Lemont, IL
Transportation and Power Systems Division
U.S. Department of Energy Science Undergraduate Laboratory Intern May – Aug 2022
Advisor: Dr. S. Scott Goldsborough

University of Illinois at Urbana-Champaign Urbana, IL
Air Conditioning and Refrigeration Center
Undergraduate Research Assistant Aug 2021 - present
Advisor: Professor Nenad Miljkovic

PRESENTATIONS

1) Argonne National Laboratory, "Control System for Single-Piston Rapid Compression Machine," Learning on the Lawn, Argonne, IL, August 4th, 2022

HONORS AND AWARDS

President's Award Honors Scholarship 2019-2023

Dean's List (UIUC) Spring 2020, Spring/Fall 2021, Spring 2022

Most Valuable Player (Thermodynamics) Spring 2021
Awarded by Prof. Leon Liebenberg for active participation in class.

Best Mini Project (Energy Conversion Systems) Spring 2022
Awarded by Prof. Liebenberg for submitting the best project in the class.

PROJECTS

Vibrating Alarm Clock

Designed and fabricated a programmable, Bluetooth, vibrating watch which would serve as an alarm clock for the hearing impaired.
Course: Illinois Engineering First-Year Experience Projects

Mask Disinfector

Designed and fabricated a prototype of a mask disinfector out of repurposed household materials to aid with the novel COVID-19 pandemic.
Course: Design for Manufacturability

Automated Social Media Bot

Utilized Python to fully automate the creation and posting of videos to Instagram and TikTok.

Water Fountain Design

Designed and built a water fountain with the objective of hitting a target and holding up a ball at a prescribed height. Utilized Python to calculate pressure losses in order to find the optimum design.
Course: Fluid Mechanics

Heat Exchanger Design

Designed a forced convection heat exchanger to maximize power dissipated while minimizing surface temperature. Utilized Engineering Equation Solver (EES) to simulate the performance of designs and to find the optimum design.
Course: Heat Transfer

Cable Walker Robot

Collaborated in a team of four to design and fabricate a one degree of freedom robot with the objective of climbing across a horizontal rope.
Course: Mechanical Design I

MEDIA AND PRESS COVERAGE

"From Trash to Treasure: Liebenberg Uses Design for Repurposing to Spark Student Interest in Online Classes, Possibly Making a Difference in the COVID-19 Pandemic," I-STEM News, May 6th, 2020.