

Evangelos Chatziandreou

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EDUCATION

Vanderbilt University, Nashville, TN – Bachelor of Engineering

August 2020 – May 2024

- **Major:** Mechanical Engineering
- **Coursework:** Fluid Mechanics, Thermodynamics, System Dynamics, Machine Analysis and Design, Circuits, Undergraduate Research

TECHNICAL SKILLS

- **Programming:** LabView, MATLAB, Latex
- **Design & Manufacturing:** Adobe Illustrator/Photoshop, SolidWorks (certified), FEA, Machining, 3D Printing
- **Languages:** English (fluent), Greek (native)

PROFESSIONAL EXPERIENCE

Laser Diagnostics of Combustion Lab, Nashville, TN – Research Assistant

January 2022 – Present

- Studied the extinction of two-state, premixed CH₄/air flames by adding N₂/CO₂ dilution to eliminate combustion instabilities in gas turbines using an opposed jet tubular burner
- Tested and integrated 4 new flow controllers in the experimental setup by updating the code and wiring them to the DAQ board
- Researched inner nozzles and assisted in ordering parts for the fabrication of 3 new inner nozzles to be integrated in the tubular burner

Advanced Robotics & Control Lab, Nashville, TN – Researcher, 1st Author, Inventor

June 2022 – Sept 2022

- Created a novel type of Parallel Elastic Actuator with a Continuously-Adjustable Equilibrium Position
- Designed the prototype, ran FEA, and created drawings for fabrication using SolidWorks
- Designed and machined the experimental setup, wrote a research paper using Latex and Adobe Illustrator/Photoshop that was submitted to ICRA 2023, and filed a provisional patent to the US Patent Office

Motorsport Club, Nashville, TN – Vehicle Engineer

January 2021 – Present

- Worked on powertrain, suspension and cooling systems using hand tools, lathe, milling, and drilling machines
- Designed and machined axel sprockets and new mounts for the anti-roll bar system, intakes, and gearbox

National Technical University of Athens, Greece – Lab Assistant

Summer 2019

- Became familiar with interference as described by classical wave optics theory, Photonic Integrated Circuits (PICs), the conceptual and idealized behavior of interferometers, and the analysis of time-bin qubits in Mach-Zehnder Interferometers
- Engaged with circuit building and simple experimentation using cloud-based quantum computing through IBM Q Experience

Siemens Hellas, Marousi, Greece – Intern

Summer 2019

- Shadowed electrical, electronics, and mechanical engineers and became familiar with traffic light control systems, industrial electrical automations, the Internet of Things (IoT), and big data software

LEADERSHIP - VOLUNTEERING

Vanderbilt University Design Studio, Nashville, TN – Mentor

August 2021 – Present

- Mentored students by 3D-printing their designs and guiding them through soldering and using various hand tools

Vanderbilt University Hellenic Students Association, Nashville, TN – Social Chair

August 2020 – Present

- Organized social events to unite Greek-American students on Vanderbilt's campus and organized transportation for religious services

CLC Educational Institute, Athens, Greece – Co-Author/Creator

January 2019 – December 2019

- Lead a team of 4 students in translating physics terminology to Farsi and published a booklet, "Physics Greek-Farsi," presented to the Greek Council for refugees