TED R. VLADY

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY, College of Engineering — **Atlanta, Georgia**

Master of Science in Aerospace Engineering — *May 2022*

- Graduate Research Assistant – Aerospace Systems Design Laboratory (ASDL) – Dr. Dimitri Mavris — GPA: 4.00

Bachelor of Science in Aerospace Engineering — *December 2020*

- Minor: Engineering & Business through the Denning Technology & Management Program — GPA: 4.00

PROFESSIONAL EXPERIENCE

GENERAL ELECTRIC AVIATION — **Evendale, Ohio | Hooksett, New Hampshire**

Performance Engineering Intern / Large Military Engines (LME) — *May – August 2021*

- Modified F110 NPSS model to allow for trade studies on water injection and delivered a pitch to engineering stakeholders
- Developed a "Lean" Python tool to interface with test production environment, reducing the time to perform checkout calculations by 90%. Tool later leveraged to assist in production testing set-up at new site

Supply Chain Management Intern / Environmental Health and Safety (EHS) — *May – August 2019*

- Identified a workplace electrical hazard and implemented an engineering solution in line with EHS quarterly goals that generated an annual net cash flow of $3,000 after three years due to contractor labor savings
- Created an Excel macro to interface with online building management system for data analysis and report generation that reduced daily and quarterly management commitment by 50%

CATERPILLAR INC. — **Alpharetta, Georgia**

Denning T&M Program Capstone Project Consultant — *October 2019 – April 2020*

- Performed customer discovery research on a new Switchgear product with over 20+ interviews
- Worked with suppliers to develop and optimize a unique engineering design that emphasized cost, safety and reliability
- Delivered a final pitchout about the new Switchgear product to upper-level management that featured a $2.5MM NPV

HONEYWELL AEROSPACE — **Tempe, Arizona**

Systems Engineering Intern / Environmental Controls Systems (ECS) — *May – August 2018*

- Validated five requirements regarding the overtemperature of the ECS system by requesting and analyzing 10 MATLAB Simulink dynamic simulations and creating a report to summarize the results to the airframer
- Analyzed OEM engine data to find temperature boundary conditions to develop a dynamic analysis model

RESEARCH

GEORGIA INSTITUTE OF TECHNOLOGY — **Atlanta, Georgia**

Research Assistant / Aerospace Systems Design Laboratory (ASDL) — *August 2017 – Present*

- Published research on the effect of additively manufactured variable inlet guide vanes (VIGV) on a micro-gas turbine
- Conducted 10,000+ engine cycle trade studies for commercial supersonic transports using JMP, NPSS, WATE & FLOPS
- Developed 4 custom NPSS elements for a geared turbofan model that improved calculations of efficiencies and losses for compressors, turbines, ducts and combustors
- Modeled a 5000-hp turboshaft engine in a multi-design-point NPSS environment for use in a hybrid electric propulsive system and optimized assumptions based on expected technology levels in 2030

Team Leader / AIAA Team Engine Design Competition — *December 2017 – May 2018, August 2019 – August 2020*

- Modeled a supersonic turbofan engine in NPSS and WATE and ran preliminary design trade studies on the engine cycle
- Placed 1st in the 2020 design competition out of 18 team entries, published on the AIAA website
- Optimized specific fuel consumption (SFC) by 8% and engine weight by 8%, over baseline, increasing range by 12%

LEADERSHIP

GEORGIA INSTITUTE OF TECHNOLOGY — **Atlanta, Georgia**

PLUS Leader & Mentor / Center of Academic Success (CAS) — *August 2018 – Present*

- Planned and held semiweekly review sessions for 20+ students to reinforce critical thinking skills and study habits
- Managed 10 tutors throughout the semester, holding biweekly group meetings and semesterly performance evaluations

SKILLS/INTERESTS

Technical: NPSS, WATE, Turbomachinery design, SOLIDWORKS, MATLAB, Java, C++, AutoCAD, MS Office
Languages: Bulgarian – working proficiency, Spanish – limited working proficiency
Interests: Gas turbine engines, data analytics, swimming, rocketry