CHRISTOPHER J. LESESNE

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Aerospace engineer with 5 years of experience in the design and analysis of gas turbine engines, and fluid mechanics research. Proficient in conducting heat-transfer analysis to deliver cooling solutions and nonconformance assessments for high-temperature components using finite element analysis and secondary flow tools.

TECHNICAL SKILLS

Thermal Analysis • Component Testing • Root Cause Analysis • ANSYS
HTML/CSS/JavaScript • MATLAB • Python

PROFESSIONAL EXPERIENCE

Systems Research Inc. (Seattle, WA) May 2017 – December 2017
Mechanical Design Engineer
(Triumph Aerospace Systems, May 2017 – September 2017)

Development, testing, and data analysis of electromechanical hardware performance for various aircraft platforms.

- Tested and delivered data analysis results on load limit and hysteresis of 9 separate flight control surface actuator systems for qualification in military rotorcraft applications
- Verified compliance with design requirements for the electromechanical components of an aerial refueling system

Lake Washington Tutoring (Seattle, WA) December 2016 – September 2017
Academic Tutor

Improving the academic performance of more than 20 students in the Greater Seattle area through professional tutoring service in mathematics, physics, and chemistry.

GE Aviation (Cincinnati, OH) June 2012 – April 2016
Thermal Design Engineer

Responsible for the mechanical and thermal design of developmental and fielded gas turbine engine components for both commercial and military applications through the Edison Cornerstone Engineering Development Program.

- Recognized with '*Clear Thinker*' team award for assessing the film-cooling capability of high-pressure turbine blades and establishing a maximum damage tolerance
- Led thermal analysis for two separate root cause investigations into low-cycle failure in turbine blades
- Improved the back-flow margin of turbine vanes through the heat transfer analysis of fielded components with nonconforming throat area
- Achieved 20% reduction in fuel nozzle weight through additive manufacturing design iterations with suppliers
- Increased fuel nozzle's capability to withstand 100°F temperature increase through 34-case sensitivity study

EDUCATION

GEORGE WASHINGTON UNIVERSITY (Washington, DC), 2012
Master of Science in Aerospace Engineering, (*magna cum laude*)

MOREHOUSE COLLEGE (Atlanta, GA), 2008
Bachelor of Science in Physics, Mathematics Minor, (*summa cum laude*)

RELATED EXPERIENCE

Code Fellows (Seattle, WA) September 2017 - Present
Student

Strengthening skills in web application development and algorithm scripting through HTML, CSS, and JavaScript.

Code 201: Foundations of Software Development
Code 301: Intermediate Software Development
GitHub: clesesne3

Independent Programming Student (Seattle, WA) April 2016 – Present

Building skill sets in development, data analysis and visualization through online coding courses and projects:

- *Python* (codecademy.com)
- *HTML & CSS, JavaScript* (codecademy.com)
- *Complete Python Bootcamp* (udemy.com)
- *Introduction to Python for Data Science* (edx.org)

Morehouse College (Atlanta, GA) June 2010 – August 2010
Research Assistant

Modeled diffraction gratings for processes involving interferometer lithography in the Micro/Nano Optics Research & Engineering (MORE) Lab. Results included predicting a 10% reduction in fringe intensity with MATLAB simulation.

Bright Star Tutors, Inc. (Atlanta, GA) January 2010 – May 2010
Private Tutor

Tutored primary and secondary school students in the areas of mathematics and physical science. Utilized a personal approach that resulted in 80% of students averaging one letter-grade improvement on exams and homework.

Georgia Institute of Technology (Atlanta, GA) August 2008 – December 2009
Research Assistant / Graduate Student

Completed 24 credit hours of graduate coursework in Physics and taught two undergraduate courses:

- Led recitations in Classical Mechanics and Electromagnetism. Graded in-class problem sets, homework assignments and tests, and proctored exams.
- Ran turbulence experiments and analyzed test data with MATLAB in the Nonlinear Sciences Lab. Results were used to identify periodicity in two-dimensional fluid turbulence.

Georgia Institute of Technology – Lorraine (Metz, France) June 2008 – August 2008
Research Assistant

Investigated applications of quantum cryptography in secure data exchange as one of five students selected for the international research program. Delivered online presentation on privacy amplification to undergraduate research students and faculty.

Massachusetts Institute of Technology (Cambridge, MA) June 2007 – August 2007
Research Assistant

Proposed and simulated various models of nuclear fuel rods to improve thermal conductivity and decrease fuel consumption. Validated models through experimental test data from the Nuclear Engineering Department.