

Nathan O’Nora

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SUMMARY

Seeking a challenging opportunity to utilize and expand my knowledge through internships, research, and schooling particularly in relation to mechanics of materials.

EDUCATION

University of Central Florida

Ph.D. in Mechanical Engineering - In Progress Fall 2015 – Present

Expected Completion: Spring 2019

Dissertation: A Viscoplasticity Model for Orthotropic Materials with Tensile Compressive Asymmetry

B.S. in Mechanical Engineering (Mechanical Systems) Fall 2011 – Spring 2015

Overall GPA: 3.99 Graduated: Summa Cum Laude, with University Honors,

Major GPA: 4.000 and with Honors in the Major

Thesis: Compendium of Thermoviscoplasticity Modeling Parameters for Materials Under Non-Isothermal Fatigue

ACADEMIC

Graduate Research Assistant: Mechanics of Materials Research Group Fall 2015 – Present

- Viscoplasticity modeling using the Chaboche Model including capture of tensile compressive asymmetry

Undergraduate Research Assistant: Mechanics of Materials Research Group Fall 2013 – Fall 2015

- Viscoplasticity modeling using the Chaboche Model including implementation into ANSYS

Senior Design Team Lead Fall 2015-Spring 2015

- Led team of seniors in a design project to construct a long term creep-fatigue test machine. Responsibilities included assignment of roles and tasks to team members, facilitating communication between team members and faculty members, and ensuring tasks were completed on time and the project was on schedule

WORK EXPERIENCE

Tool Development Intern: Power Systems Manufacturing May 2015 – August 2015

- Responsible for the development of tools to be used in creating life models for materials used in industrial gas turbines

Combustion Intern: Power Systems Manufacturing May 2014 – August 2014

- Design work and design tool development relating to dual fuel combustion systems in industrial gas turbines

SKILLS

- Experience with Mathcad, MATLAB, Solidworks, PTC Creo, ANSYS Mechanical APDL, NX, and Excel (including VBA user defined functions and Macros)

AFFILIATIONS

- Member, Burnett Honors College: August 2011 – May 2015
- Member, American Society of Mechanical Engineers: 2013 – Present

PUBLICATIONS

Gordon, A. P., Jones, N., Nunez-delPrado, A., O-Nora, N., and Penmetsa, R. C. (2015)
"Microstructurally-Informed Life Prediction Model for Combined Thermal-Acoustical-Mechanical Fatigue on IN617 and Ti6242S" Propulsion Safety and Readiness Conference (P-SAR), March 30th - April 2nd, Baltimore, MD.

HONORS AND AWARDS

- UCF Presidential Doctoral Fellowship
- UCF Provost Scholarship
- Dean's List
- Florida Striders Scholarship
- Bright Futures Academic Scholar