ALBERTO M ROMAN-AFANADOR

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EDUCATION

UNIVERSITY OF NOTRE DAME — Notre Dame, IN
M.S. in Aerospace Engineering — December 2019
Ph.D. Aerospace & Mechanical Engineering — Estimated Graduation: August 2020
Advisor: Grétar Tryggvason, Ph.D.

UNIVERSITY OF PUERTO RICO — Mayagüez, PR
B.S. Mechanical Engineering — May 2015
Magna cum laude

COLEGIO SAN ANTONIO — San Juan, PR
High school Honor's Student — May 2010

AWARDS AND HONORS

Kinesis-Fernandez Richards Family Fellowship, 2015-present

TEACHING EXPERIENCE

UNIVERSITY OF NOTRE DAME — Notre Dame, IN
Grad Teaching Assistant, Aerospace & Mechanical Engineering: Aug 2015-Dec 2017

Instructor: Turbulence, University of Notre Dame, Fall 2017
Tutoring, emphasis on High Reynolds No. Flows, and Reynolds Average Navier-Stokes

Lab Instructor: Solid Mechanics Lab, University of Notre Dame, Spring 2015 & 2016
Lectures and laboratory, emphasis on Stress-strain analysis

Instructor, Department: Computational Fluid Dynamics, University of Notre Dame, Fall 2015 & 2016
Tutoring, emphasis on Numerical Analysis, and Fluid Mechanics

PROFESSIONAL EXPERIENCE

UNIVERSITY OF NOTRE DAME — **Notre Dame, IN**
Researcher, Aerospace & Mechanical Engineering — August 2015-December 2017

Studied computational simulations of multiphase flows in order to apply to multiscale modeling problems. Derived accurate models for thin film regions within a multiphase flow.

NASA, MARSHALL SPACE FLIGHT CENTER **Huntsville, AL**

Intern, Space Systems Department June-August 2014

Calculated thermal parameters of a payload that would be heated in the ISS and developed a thermal model using Mathcad, AutoCAD and Thermal Desktop. Received 3rd place award in science category among intern presentations

PRESENTATIONS

Mechanics and Applied Science Seminar: *Numerical Modeling of filaments in multiphase flows using front tracking*, May 2017

American Physical Society- Division of Fluid Dynamics: *Embedded Semi-Analytical Modeling of small scales in simulations of multiphase flow,* November 2018

American Physical Society- Division of Fluid Dynamics: *Effect of Topology Changes in breakup of a periodic liquid jet,* November 2019

LEADERSHIP AND SERVICE

SAE Aero Design Team member, University of Puerto Rico, 2014

SAE Aero Design: Aircraft Performance and Aerodynamics Leader, University of Puerto Rico, 2015

REFERENCES