



# Shreyas Bidadi

Graduate Research Assitant

Department of Mechanical and  
Aerospace Engineering

## BIO:

Mr. Shreyas Bidadi is currently pursuing a PhD in Mechanical Engineering. The objective of his research is to perform fundamental computational investigations of the effects of finite-rate chemistry and of turbulence-chemistry interactions on combustion instability predictions in a single-injector-element rocket combustor. The computational approach involves performing rigorous two- and three-dimensional (2-D and 3-D) large-eddy simulations (LES) of non-isothermal, turbulent reacting flows in a single element rocket combustor.

Prior to joining UAH, he worked as a research assistant under Professor Stephen Heister at Purdue University to perform computational and experimental work on jet interaction Fluidic Injectors; a state of the art devices capable of generating oscillating jet with potential to control flow and combustion instability. In Summer 2010, he assisted researchers at Purdue to validate experimental results of an Over-Expanded Thrust Optimized Nozzle using ANSYS-FLUENT. Additional research experience included developing software for Vibration Control Experimental System using Visual C++ in Space Dynamics Control Laboratory at York University in 2007.

Shreyas is currently a member of Sigma Gamma Tau, the Aerospace Honor's Society and Phi Kappa Phi National Honor Society. During his undergraduate program at York, he was a member of Dean's Honor Roll for Science and Engineering and Chair's Honor Roll for Mathematics and Statistics. He also received the McKittrick Scholarship for being the top first year student in Space and Communication Sciences. He has participated in extracurricular activities by taking part in competitive Cricket tournaments as a member of Purdue University Cricket Club and at UAH regularly takes part in INFOCUS Club meetings.

## Contact Information:

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## RELEVANT PUBLICATIONS:

1. Bidadi, S., Heister, S.D., Matsutomi, Y., "Computational and Experimental Study of Jet Interaction Fluidic Injectors," Journal of Atomization and Sprays, Vol. 21, pp. 127-138, 2011.