

# Spring 2021 Recognition of Graduates

April 21, 2021



Dr. Robert A. Frederick, Jr.  
*PRC Director*  
*Professor of Mechanical and Aerospace Engineering*  
*From Home, April 22, 2020*



---

# Spring 2021

## PRC Graduate Recognition Program

Welcome

*Dr. Robert Frederick, PRC Director*

Recognition of Graduates

*Ph.D. Students*

*Master's Students*

*Undergraduate Students*

Virtual Reception

*Introduction of Special Friends and Family Members*



**Dr. Joseph Robert Kennedy Buckley**  
**La Crosse, WI**

**Advisor: Dr. George Nelson**

**Joe plans to work in the aerospace industry in applied propulsion research.**



**Dr. Joseph Indeck**

**Advisor: Dr. Kavan Hazeli**

**Joseph plans to continue his research career after graduation.**



**Dr. Althea Wilson**

**Advisor: Dr. Babak Shortban**





**Prathmesh Anantwar**  
**Pune, India**

**Advisor: Dr. Kavan Hazeli**

**Prathmesh plans to pursue a career specializing in materials and manufacturing.**



**William Hankins**  
**Lexington, AL**

**Advisor: Dr. Robert Frederick and Mentor Dr. David Lineberry**

**William plans to pursue a position in modeling and simulation related to propulsion.**



**Margarita Hockensmith**  
**Lexington, KY**

**Maggie pursued the Non-Thesis Option while working full-time for Dynamic Concepts, Inc. Her degree focused on propulsion, as she took Rocket Propulsion I, Rocket Propulsion II, Adv. Solid Rocket Propulsion, and Airbreathing Propulsion. She plans on working full-time in the future - hopefully for a small engineering company. I'd like to be given the opportunity to help NASA with the Space Launch**





**Erik Korzon**

**Plan II – Masters Degree**

**During his Master's Degree he worked at Blue Origin. His focused on fluids and advanced propulsion. He is currently finishing CFD II, intro to electric prop, and intro to nuclear prop.**



**Ward Manneschmidt**  
**Knoxville, TN**

**Advisor: Dr. Phil Ligrani**

**Ward is planning to continue graduate studies at the University of Alabama in Huntsville in pursuit of a Ph.D. degree**



**Evan Unruh**  
**Eagle Creek, OR**

Advisor: Dr. Robert Frederick

**Evan has started a position at Aerojet Rocketdyne.**



**Wesley Viall**  
(Wesley, Strider, and Mary Kate)  
**Madison, Alabama**

**Mentors: Dr. Robert Frederick, Dr. David Lineberry, and Dr. Keith Hollingsworth**

**Wesley plans to continue a PhD program at UAH while continuing to work for the government.**





**Melissa Costa**  
**Decatur, AL**

**Mentor: Dr. David Lineberry**

**Melissa plans on pursuing a position that will further refine the skills she gained at the PRC.**





**Matthew Cox**  
**Tullahoma, TN**

**Mentor: Dr. Phil Ligrani**

**Matthew is planning to continue graduate studies at the University of Alabama in Huntsville in pursuit of a Master of Science degree.**



**Kyle Goethals  
Tullahoma, TN**

**Mentor: Dr. Phil Ligrani**

**Kyle is planning to continue graduate studies at the University of Alabama in Huntsville in pursuit of a Master of Science degree.**



**Benjamin Knox**  
**Trussville, AL**

**Mentor: Dr. Phil Ligrani**



**John McDonough**  
**Tuscaloosa, AL**

**Mentor: Dr. Phil Ligrani**



**Christopher Smith**  
**Charlotte, NC**

**Mentor: Dr. Phil Ligrani**





**Nathan Ulmer**

**Mentor: Dr. Gang Wang**

## Michaela Hemming has her choice of three national graduate engineering scholarships

APR 12, 2021 | [Jim Steele](#)



Michaela Hemming has qualified for the U.S. Department of Defense (DoD) National Defense Science and Engineering Graduate (NDSEG) fellowship and DoD's Science, Mathematics and Research for Transformation (SMART) scholarship, as well as the NASA Space Technology Graduate Research Opportunities (NSTGRO).

"Michaela is currently working on her MSASE degree studying the effect of plasma discharges on detonation waves using a linear detonation tube experiment," Dr. Xu says. "She should be done this summer and will progress to her PhD project in rotating detonation engines. For her PhD, she will be studying the effect of injector designs on propellant mixing, atomization, detonation wave propagation and engine performance."

## Thoughts for the Future

The UAH PRC stands poised to build upon a rich legacy of research advances in propulsion. One of our original strategies was to pursue funding support for projects that would support students. The faculty associated with the PRC have followed that vision and we are on the verge of assisting 300 graduates with advanced degrees on propulsion topics and total expenditures at \$60 million in our first 30 years. That averages to about \$200,000 of external investment per degree. Our strategy forward will focus on continuing a legacy of excellence in student education in the propulsion arena, equipping the future workforce for success in their careers. - Dr. Robert Frederick, Director, UAH Propulsion Research Center

### *A few of our Values:*

- **Opportunity:** *"I have an Opportunity for you."*
- **Courage:** *Aerospace is not for the faint of heart."*
- **Relationships:** *"Keep your relationships more important than tasks or problems."*





# Special Thanks

---



- PRC Staff and Associated Faculty
- MAE Department, Keith Hollingsworth
- UAH Leadership
  
- Parents, Grandparents of Graduates
- Brothers and Sisters of Graduates
- Spouses of Graduates
- Friends of Graduates
- Guests



# Blast From The Past - December 2019

