NDSEG Professional Development: Fellows Highlights

Through the generous support of the Department of Defense, NDSEG fellows are provided up to $5,000 travel budget over their tenure. This budget is intended for professional development and for attending the NDSEG Annual Conference. It offers a rich experience with opportunities to foster an exchange of scientific information, stimulate research in each fellow's DoD Research Discipline Area, and establish connection with various organizations doing similar work. Below are some highlights from fellows who recently shared their experiences in pursuing their professional development.

Benjamin Feuge-Miller

Air Force Office of Scientific Research (AFOSR)

Computer and Computational Science

Presenter at the 73rd International Astronautical Congress (IAC) in Paris, France

The IAC is one of the biggest conferences in the world for space industry research and development. Presenting at this venue, I was able to network with several groups - including the University of Rome and the GMV Space Debris Office - initiating collaborations that can help my NDSEG research grow and receiving critical feedback on my current work. Additionally, I was able to hear from government, academic, and industry leaders on topics ranging from climate monitoring to planetary
defense to exoplanet characterization - and discuss extensions of my computational work to varied and challenging problems.

Presenting at the IAC provided valuable feedback on my NDSEG research from academic and industry professionals specializing in my field of work, opened collaborations for evaluating my techniques against other competitive state-of-art, and introduced new lines of work in which my research can be extended after defending my dissertation.

Many of the problems debated and deliberated over at the IAC demand computational developments to properly address. Climate monitoring, planetary defense, and satellite tracking - to name a few examples - involve massive quantities of data that need to be processed in real time to yield actionable information. Being able to draw new inferences from such data sets, or identify obscured patterns and behaviors, demand new innovations in how we approach such problems. As such a large international conference, being a part of the IAC provides insight into how the state-of-art is developing across the industry and across nations.

I'm extremely grateful to the NDSEG program for supporting my participation in my first major international conference - of many.
Nicholas Joslyn
Office of Naval Research (ONR)
Oceanography

*Presenter at the 2022 International Conference on Underwater Acoustics in South Hampton, United Kingdom*

Typically, I attend conferences in the continental U.S. This NDSEG-supported conference provided a new and relevant audience of international researchers with whom I interacted with and discussed my research.

At the conference, I presented a new component of my NDSEG-funded research. The new research got positive feedback which guided the next few months of my research. After another presentation in the Fall of 2022, we feel ready to write up a journal manuscript.

ICUA 2022 was an extremely relevant conference as my DOD research discipline is Oceanography with the Office of Naval Research. I fall in the sub-discipline of remote sensing in underwater acoustics.
Mark Palmquist
Army Research Office (ARO)
Chemistry

Participant, Professional Networking Conference in Dallas, Texas

I was able to travel to a career conference provided for service academy alumni to network with fellow graduates and potential industry employers. The conference allowed me connect with recruiters who played a key role in my ability to accept an offer for employment after graduation.

Following my attendance at the Service Academy Career Conference in Dallas, I maintained contact with representatives from Boeing who I met while I was there. Through that network, I interviewed and was offered a job with Boeing in St. Louis, MO working as a Senior Materials and Process Engineer. In this role I will be working under Boeing Research and Technology primarily on DoD projects as part of the Phantom Works Program.

My DoD research discipline area is in Chemistry with the Army Research Office. The conference also provided a venue to meet chemistry industry professionals at this career conference.