

Naval Surface Warfare Center (NSWC) Crane Division Presentation at
Oregon State University:
“NSWC Crane Day”

“Adversarial Learning via Probabilistic Proximity Analysis”

Mr. Jarrod Hollis – Oregon State Univ. Graduate Research Assistant Student and NEEC “Cost-Aware Defense of Sensors-to-Decisions Systems against Malicious Data Attack” Project Lead

Abstract:

Machine learning models are increasingly applied to critical tasks, such as autonomous driving. Recent work has highlighted the vulnerability of such models to small perturbations of input data generated by an adversary. To reduce the impact of adversarial attacks, we propose a model-agnostic defense approach based on a probabilistic proximity analysis. Numerical experiments demonstrate the effectiveness of our defense approach against optimally designed attacks.

“Professional Growth at NSWC Crane and the Trusted AI Initiative”

Mr. Tyler Fitzsimmons, Engineer and NEEC Technical Mentor to OSU and Indiana University, NSWC Crane

Abstract:

During my discussion, I will cover how Crane has allowed me to grow professionally and make an impact on technology for tomorrow. I will discuss what led me to government service and a few ongoing AI/ML projects, which I am involved. The end of my discussion will focus on a sole Trusted AI effort NSWC Crane is leading; collaborating with academia to provide more insight into trust in AI/ML systems the military is developing now, and in the future.

“Leading Civilian Scientists and Engineers”

Mr. Larry Fink, Division Manager, Expeditionary Command, Control, Communications, Intelligence & Cyber Division, NSWC Crane

Abstract:

The purpose of this talk is to share my experiences as a civilian employee at NSWC Crane with the goal of providing information that will help others learn how to pursue a career as a civilian scientist or engineer. The talk will discuss my Division, (Expeditionary C3I & Cyber), associated systems supported, and typical tasking for a civilian scientist or engineer. I will focus on career opportunities as a civilian Navy scientist or engineer but will also provide information on my background as an active duty

Electronic Warfare Technician and career as an owner/operator of an IT Services Company before joining the civilian workforce at NSWC Crane.

“My Journey from New York to Indiana as a Hardware Cybersecurity Engineer”

Mr. Ryan Gagnon, Computer Engineer, NSWC Crane

Abstract:

Coming out of college as an officer in the New York National Guard, I had no idea I would end up in Indiana as an engineer for the Navy. However, this has been my favorite organization and work environment in which I have belonged. I have enjoyed being a member of various hardware security research projects to include (1) High Assurance Interface Protocols", (2) Work on formal methods and formal assurance, and (3) FPGA security. In this talk, I will explain the path that led me to a career at NSWC Crane, the projects and work I have been a part of, and why you should consider working for Crane!

“Experiences of a NSWC Crane Employee”

Ms. Carlie Booe, Scientist, NSWC Crane

Abstract:

The purpose of this talk is to share experiences I have had as a civilian employee at NSWC Crane to potential applicants with the goal of providing information that will help others learn how to pursue a career as a civilian scientist or engineer at NSWC Crane. The talk will discuss military systems supported by NSWC Crane and typical tasking for a civilian scientist or engineer. By explaining the mission of NSWC Crane and its importance to National Security, I will provide information to those who may be interested in supporting the Navy as a civilian but are otherwise intimidated by the process of applying for a federal civil servant position as a scientist or engineer. I will discuss my background that took me from a degree in Informatics at Indiana University to becoming a civilian employee at NSWC Crane. More specifically, I will discuss previous and current tasking, experiences and lessons learned, and a description of what an average day looks like for me as a civilian employee at NSWC Crane.

“Internships, Scholarships, and Employment Opportunities at NSWC Crane”

Dr. Bryan Woosley, University Liaison, Chief Technology Office, NSWC Crane

Abstract:

I am a civilian scientist employed at NSWC Crane and am assigned to the Chief Technology Office as the University Liaison. I serve as the site coordinator for multiple Science, Technology, Engineering, and Mathematics (STEM) programs that include the Naval Research Enterprise Internship Program (NREIP) and the Science, Mathematics And Research for Transformation (SMART) Scholarship for Service Program. I also support research collaboration efforts with university faculty researchers in my role as Naval Engineering Education Consortium (NEEC) Director for NSWC Crane. The goal of my talk is to share opportunities for internships, scholarships, and entry-level employment at NSWC Crane and to discuss the unique application process and benefits of each opportunity.