RADAR DIVISION - ENGINEERING/PHYSICS/MATHEMATICS /COMPUTER SCIENCES

RADAR DIVISION, CODE 5300

The mission of the NRL Radar Division is to conceive, develop, demonstrate, document, and transition RF sensing concepts, technologies, and intellectual property that provide technological advantage for the US military. Fundamental to this mission is the performance of high quality forward-leaning research and engineering that is rigorous, complete, and detailed, and performed with consideration of the Navy and Marine Corps tactical operating environments.

New developments in radar require specialists in many STEM disciplines. Examples include:

• Radar systems engineering
• Electromagnetics
• Antennas and adaptive beamforming
• Microwave and mm-wave techniques
• Modern digital receivers and exciters
• Statistical and adaptive signal processing
• Applications of AI/ML
• Detection of signals in noise
• Real-time software design and development
• Modeling and simulation
• Transmitters and solid state technology

AN/SPQ-9B

ABOUT THE JOB

The Radar Division of the United States Naval Research Laboratory has full time employment and internship opportunities for highly qualified STEM graduates and students to perform research and development of advanced RF sensing system concepts and technologies. Located at the SW corner of Washington DC, close to the Maryland and Virginia borders, we offer excellent compensation and benefits in a flexible work environment where advances in science and technology are the most highly valued products.

The Division is looking for highly qualified students in engineering, physics, computer science, and mathematics who are interested in learning and working in an R&D environment, are interested in disciplines of importance to radar, and have a desire to advance the art of RF sensing in support of the nation. For many positions advanced degrees (MS, PhD) are preferred, however positions are also be available for applicants with BS degrees as well as students.

POSITIONS AVAILABLE IN THESE AREAS

- **Electromagnetics**: Develop new computational electromagnetic prediction algorithms and software implementations to improve prediction accuracy and speed. Design and analyze new antenna concepts using advanced numerical methods. Design, build, test and apply new antennas.
- **Adaptive signal processing**: Analyze new concepts for adaptive processing including cancellation of jamming, space-time adaptive processing, and adaptive filtering. Design and build experimental systems and conduct field tests.
- **Radar system design and analysis**: Develop computer models to predict the performance of new radar concepts including modeling of the environment, develop accurate hardware models, determine requirements, and evaluate technical performance. Design and build experimental systems and conduct field tests.
- **Advanced radar techniques**: Distributed radar, MIMO techniques, Automatic Target Recognition, electronic protection, Synthetic Aperture Radar (SAR), Inverse Synthetic Aperture Radar (ISAR), and applications of AI/ML.
- **Software**: Develop software for experimental RF sensing systems and subsystems. Applications may include digital signal processing, simulation, data acquisition, displays, visualization, tracking, and system control.
- **Digital and RF Design**: Develop advanced signal processing systems using the latest DSP technology, including FPGAs and programmable processors, and apply them in experimental and operational radars.

MINIMUM REQUIREMENTS

US Citizenship required for all positions.
Ability to obtain and maintain a DoD Security Clearance.
Minimum 3.5 GPA.

JOB BENEFITS

The Department of the Navy offers a comprehensive benefits package that includes tuition support, paid vacation, sick leave, holidays, health insurance, and a 401K-type retirement plan. For additional details, visit
https://www.nrl.navy.mil/careers/benefits/
https://www.nrl.navy.mil/Careers/
https://www.nrl.navy.mil/careers/students/

HOW TO APPLY

Send resume and transcripts to:
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