1. **Research Title:** AI/ML Enabled Direction Finding Using Reconfigurable Hardware
2. **Individual Sponsor:**

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3. **Academic Area/Field and Education Level:**

   Electrical/Computer Engineering (MS or Ph.D. level)
4. **Objective:** Incorporate AI/ML techniques to enable direction-finding for advance radar capabilities. A research area of interest focuses on developing AI/ML techniques to reduce computational latency and improve accuracy in direction-finding algorithms using agile RF architecture.
5. **Description:** Traditional direction-finding algorithms provide good accuracy at the expense of intensive computation and power consumption. AFRL is interested in exploring AI/ML techniques to significantly reduce receiver computational latency while optimizing size, weight, area, and power (SWAP). Potential AI/ML techniques but not limited to deep learning, convolution neural networks. AFRL will provide access to the AFRL/RY Multifunction SDR Testbed Laboratory (MiST Lab) for performing research and demonstrations.
6. **Research Classification/Restrictions:** Unclassified
7. **Eligible Research Institutions:** DAGSI-SOCHE Members