RD057

Engineering Internship – Fall 2017 (September-November)

Echodyne has developed a core technology platform that enables a new architecture of all-electronic fast-scanning RADAR systems by leveraging the unique properties of metamaterials. This platform, the Metamaterial Electronically Scanning Array (MESA) enables the same beam-steering control of a phased-array antenna, but with dramatically reduced cost and complexity. Echodyne believes this technology has the potential to revolutionize the accessibility of imaging radar systems, and is now developing MESA for a broad range of markets – both commercial and government.

Echodyne is seeking a Fall Engineering intern with experience in testing and evaluating DC/Digital electronics in addition to RF/Antenna test to work from September through November/December 2017 in a fast-paced startup environment building its next generation RADAR-based machine vision platforms. The ideal candidate will be energetic, methodic and detail-oriented and take pride in the quality of the work they contribute to the team and company.

Responsibilities:

- Engage with senior engineers at Echodyne to test and troubleshoot DC, Digital, RF, and Microwave circuits in prototypes.
- Perform electronics soldering and assembly of prototype and small-batch antenna systems and sub-systems.
- Perform light mechanical assembly work, including mounting, radome, application, cable preparation and packaging.
- Experience with top level assembly and troubleshooting of RF and Electronics prototypes.

Required skills:

- Electrical Engineering/Robotics/Computer Engineering
- Ability to troubleshoot and test basic circuits using Digital Multimeters/Oscilloscopes.
- Understanding of digital and analog circuits, and ability to read circuit schematics, block diagrams, component data sheets, and test procedures.
- Familiarity with ESD control program processes and materials.

Desired skills:

- Execution of test scripts and SW utilized to test RF and Antenna subsystems.
- Experience in MATLAB environment or other language a plus.
- Computer Science / Coding
  - Skills in C/C++ for embedded systems such as microprocessors (e.g. Arduino, PIC).
  - Coding in MATLAB, Python, or C/C++ for data processing and plotting.
- Experience with calibration and testing of RF or Antenna subsystems using oscilloscopes, network analyzers, power meters, signal generators and spectrum analyzers.
- Some experience with a SPICE tool (LTSpice, Cadence etc.) to simulate DC and Digital electronic circuits.

Qualifications:
• Upper-level undergraduate training (or equivalent experience) in engineering, mathematics, physics, or sciences.
• Eligibility to handle export controlled data (ITAR, EAR)