Software Algorithm 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 scientific computing and simulation, algorithms design, and C-programming 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:

- Work alongside radar and signal processing experts to assist in designing and testing algorithms to meet specific system-control and processing needs.
- Develop Matlab and/or Python simulations to assist in the evaluation of system control, peak detection, state estimation, tracking, and decision making algorithms.
- Work with embedded engineers to optimize algorithms for hardware implementation.

Required skills:

- Strong mathematical background.
- Familiarity with good code structure, maintainability, and source control practices.
- Computer Science / Coding with experience in C/C++.
  - Skills in C/C++ for embedded systems such as microprocessors (e.g. Arduino, PIC).
- Coding in MATLAB, Python, or C/C++ for data processing, analysis, and plotting.

Desired skills:

- User-facing API and GUI development.
- Execution of test scripts and SW utilized to test Embedded, RF, and Antenna subsystems.
- Experience with baremetal, Linux, RTOS, and multithreaded embedded programming.

Qualifications:

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