Job Opportunity: Build and Fly Airborne Lidar Mapping Systems

We are a hardware spin-out from MIT Lincoln Lab, commercializing advanced lidar systems for airborne 3D mapping. 3DEO designs, builds, qualifies, operates, and maintains lidar systems for government and commercial applications. Our engineers have designed and built the world’s most capable lidar sensors, integrated them into airplanes, flown with them, and gotten them to work reliably for operational use by the US Department of Defense. We love this stuff! We are a “you build it, you fly it” company. Contact us!

Lidar Engineer:
We seek engineers who will thrive as part of a tight, focused team dedicated to creating and executing innovative solutions. We will train you on the job about the specifics of our technology; as a foundation we seek expertise in several of the following:

- **Optics:** our lidars include sophisticated detector arrays, powerful pulsed lasers, precision scanning systems, and the optics between them.
- **Instrumentation:** Design real-time embedded systems for instrument control and readout. Build robust, reliable, cost-effective airborne surveying instruments.
- **Analysis** of large data sets: Use Matlab/Python to sift through the large data sets efficiently and drive to conclusions. Develop new processing algorithms.
- **Airborne sensors:** Design and integrate optical sensing payloads. Conduct system trade studies for size/weight/power/cost/performance. Understand impact of subcomponent performance on the utility of data products for a given application.
- **Data recording:** Design, develop and debug data acquisition systems for high rate cameras (multi-GB/sec). Understand frame-grabbers and recording architectures.
- **System control software:** Design instrument control software and simple user interfaces. Understand how to write complex, fault-tolerant software so the operator’s job is easy, even automated.
- **Cloud data processing:** Develop workflows for automated, scalable processing of city-scale lidar data sets: point clouds with $10^{12}$ 3D points generated from 100 TB of raw data.

Qualifications:
We are most interested in motivated, passionate technical problem solvers. There are openings for BS, MS, and PhD-level team members. The successful candidate will be able to explain how she/he solved a difficult technical problem involving optics, electronics, and/or mechanical systems. We want to know that you understood the problem deeply, identified the critical elements, took a wide view and created an innovative solution, tested and validated the solution, and worked successfully within your team. We need to know that you will be able to quickly learn what is needed to thrive in our product sphere. Your skill set should contain at least one element that will allow you to start contributing right away while learning about lidar systems over a longer period.

*Boston, MA. Courtesy of MIT LL*