

System Characterization Engineer

We are seeking an entry level System Characterization Engineer for our Research Triangle development center to be a key contributor to engineering activities aimed at revolutionizing the world of LiDAR systems for autonomous vehicles, UAVs, industrial automation and other applications. You will be a key contributor in the collection of lidar data and characterization of prototype lidar systems.

JOB RESPONSIBILITIES

- Characterizing the quality and performance of range cameras
- Setting up and maintaining data processing pipelines to categorize and filter lidar data.
- Running calibration procedures and verifying data quality under various operating conditions.
- Taking algorithms written by senior team members and producing documented tools.
- Building test setups/fixtures for data collection.
- Producing clear and concise written reports summarizing results for the broader team.
- Learning techniques on the job as necessary.

REQUIREMENTS

- Entry level position for a Physics/EE/Material Science/CS (or related) Bachelors or MS degree holder.
- Background in physics, materials science, EE, CS or a related discipline
- Knowledge of Python and associated numerical processing packages (such as Numpy, OpenCV, Matplotlib, Scipy, etc.) or equivalent MATLAB experience
- Basic image processing in MATLAB/Python
- Basic knowledge of statistical methods
- Experience with experimental design and practice
- Experience in validating dataset quality and extraction of key parameters.
- Ability to use basic software such as spreadsheets, word processors, PowerPoint.
- Ability to work independently and communicate results to team.

PREFERRED EXPERIENCE

- Working knowledge of simple electronics and use of function generators, oscilloscopes, etc.
- Experience with instrument interfacing such as through serial ports, ethernet, GPIB
- Understanding of signal processing techniques
- Use of microcontrollers (such as Arduinos) for data collection or device control
- Basic familiarity with Linux
- CMOS camera operation and interfacing
- Knowledge of optics/optical propagation of light
- Use of stepper motors/sensors/integrated data collection systems
- Experience with rapid prototyping equipment, such as 3D printers or milling machines

ABOUT US

We are passionate about building the next generation of LiDAR systems for autonomous vehicles, UAVs, industrial automation and many other applications. Our core technology – protected by over 200 patents – enables a simple, high-performance, solid state solution with no moving parts that can



uniquely meet the rigorous performance, reliability and cost requirements of the automotive industry. Sense Photonics was founded in 2016 and is based in Research Triangle Park, NC with offices in Edinburgh, UK and in Silicon Valley. We are well financed, backed by several top tier venture capital firms and have already developed strong customer traction for our solution. We are building an innovative world-class company that designs and builds the world's best 3D sensors. Sense Photonics is also an equal opportunity employer – all applicants will be given equal consideration.