

ALGORITHMS DEVELOPMENT AND DATA PROCESSING ENGINEER

Sense Photonics is seeking a smart and creative Algorithms Development and Data Processing Engineer for our newly opened Edinburgh Advanced Design Centre. The candidate will play a critical role in building the next generation of LiDAR systems for autonomous vehicles, UAVs, industrial automation and other applications. The position will focus on developing innovative and efficient algorithms for processing low- to mid-level data from our new LiDAR system. You will be part of our advanced development team and will work with us to address complex problems in this fast-evolving field. We are looking for a team player who is keen on tackling intellectual and technological challenges, and who is interested in working in an exciting space in a start-up environment, and whose input will have direct contribution to the final product and to our company's success.

Office Location: One St Colme Street Edinburgh, Scotland

Remuneration: Competitive compensation and employee benefit package

JOB RESPONSIBILITIES

- Develop methods for processing vast amounts of raw data to deliver high-confidence 3D point clouds
- Implement in MATLAB the developed system with increasing complexity to match real world measurements and implement non-idealities and optimisation of existing code
- Identify hardware for embedded, real-time implementation of the developed algorithms and demonstrate their robustness using real-life data
- Work with the hardware team and propose improvements to existing system in order to deliver optimized performance
- Define and carry out experiments to test the performance boundaries of the developed algorithms
- Provide inputs into software, hardware, system and silicon specifications
- Work closely with firmware and software engineers to understand current system
- Research current state of the art in LiDAR systems

REQUIREMENTS

- Strong, in-depth understanding of algorithm development for DSP (image sensor, audio, communications) or system control
- Specific experience in image processing or in statistical data analysis
- 3+ years' experience in MATLAB/Python/Simulink modelling of complex systems

- Solid understanding of hardware, software and system constraints
- Experience in 3D imaging, LiDAR, firmware or software development not essential but highly desirable.
- Industrial experience is not mandatory but is desirable
- Team player
- Excellent verbal and written communication skills

QUALIFICATIONS

- PhD in Electrical Engineering, Physics, Mathematics, Computer Science or Software Engineering (or a similar relevant subject) – exceptional candidates with a master's degree will be considered
- Solid post graduate or placement experience in Engineering

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.