PHOTONIC SENTRY

Position: SOFTWARE ENGINEER

Do you want to make a meaningful and lasting impact on the world? Do you want to come to work knowing that your contribution can change millions of lives? Join us in the mission to diminish the disease and destruction caused by harmful insects to protect the world's population and food supply!

Photonic Sentry is building a revolutionary insect control device - the Photonic Fence, designed to track targets in flight, identify whether they are harmful or benign and disable the harmful ones by shooting them down with lasers. Initially conceived to help reduce malaria transmission, the technology can be applied in the fight against many other human diseases, including zika, dengue, chikungunya, leishmaniases, and many others. Beyond the vector control applications, the Photonic Fence has the potential to transform the way we protect people, crops, and livestock across a wide range of use cases, spanning commercial, agricultural, government, military and residential.

- Develop and deploy a revolutionary new device using lasers to control insect-borne diseases
- Become a core member of a small, dedicated team in a fast-moving startup environment
- Join now and immediately impact product design decisions for the first generation of the technology that will be deployed to customers

Members of Photonic Sentry's technical staff are skilled in software, optics and laser physics, mechanical and electrical engineering. We are looking to hire a Software Engineer to join our technical team. The successful candidate will be comfortable working both independently and as part of a small, focused, dedicated team in a collaborative environment of engineers, scientists, and technicians. The Software Engineer will be responsible for setting performance requirements, designing, overseeing manufacturing and ultimately assembling the software and requisite compute platform for an advanced computer vision system. The successful candidate will demonstrate the ability to think creatively and to operate within a flexible, fast-paced development program dedicated to converting advanced research into real-world functional products.

Responsibilities

- Design, prototype, implement, and performance-optimize mathematical models, algorithms, software, and associated compute platform for a computer vision system used in tracking, identifying, and killing airborne insects
- Manage engineering projects from feasibility stage to commercialization
- Translate numerical and combinatorial algorithms prototyped in a high-level language to efficient implementation in C

- Participate in overall system architecture and design, in cooperation with electrical, mechanical, and optical engineers
- Work with cross-functional technology development teams to define the criteria for moving the project from prototype into product development
- Clearly communicate/present product development updates to internal and external team members, Photonic Sentry executives and other stakeholders
- Participate in field demonstration programs, travelling as needed to test sites and partner locations to assess efficacy and gather feedback

Qualifications

- An indelible desire to change the world for the better
- BS in computer science, mathematics or equivalent; MS or PhD preferred
- 5+ years of experience in C or C++ software development
- Practical experience with digital signal processing techniques such as digital filtering and frequency estimation
- Basic knowledge of computer vision, or at a minimum, rudimentary facility with linear algebra
- Proficiency designing in a Real Time OS
- Experience using version control systems and defect tracking software
- Experience working in the developing world a plus

We are an equal opportunity employer

About Us:

The Photonic Fence technology was originally developed at Intellectual Ventures Lab, with support from the Bill & Melinda Gates-backed Global Good Fund. Photonic Sentry was established in 2016, charged with designing, analyzing, prototyping, productizing and field testing this new and groundbreaking device to solve global health and global development challenges. You can learn more about Photonic Sentry and the Photonic Fence at www.photonicsentry.com.