Imaging and Optics Laboratory: Engineer or Associate Engineer
(Engineer II: Imaging and Optics Laboratory)

Alitheon is a startup that invented the patented concept of the FeaturePrint™. Think of it as a fingerprint for any solid object. Solid objects all have unique surface patterns and we can teach our system to recognize those patterns. This means that once our system sees an object, we can positively identify that same object in the future. Let your mind wander over the possibilities.

We’ve demonstrated that FeaturePrints work in the lab and in several key real-world use cases, and are building an enterprise-grade software platform to deploy our core technology. We want to best leverage the wave of innovation in sensor technology, automation, and mobile devices to enable new applications. To do this, and keep improving our core software, we need to further expand our internal capabilities in optics, imaging engineering, testing and camera technology. We are a small team on a big mission and need to quickly assess technology to take advantage of the demand coming from Fortune 500 companies.

Do you want to help determine these key capabilities that drive our platform? Would you like to be “hands-on” in the lab and design, and still work with a creative machine vision platform? Are you passionate about working with a small but growing start-up? If so, we would love to talk to you.

Job Description

We’re looking for a self-starting, motivated Engineer or Associate Engineer to be the operational point person for Alitheon’s laboratory imaging, optics, and data acquisition efforts. We envision this position to be primarily focused on organizing and executing experiments to drive the development of our core software technology, and also assess a range of candidate hardware and approaches. It’s a blend of lab science, engineering, software tinkering, applications, and common sense. You’ll have the opportunity to learn and be a part of the multi-disciplinary team driving this technology, and have a personal impact on the approach and product from the start. Regardless, you’ll be able to learn about and get “hands-on” with almost any aspect of our work. You can bring a scientific and laboratory mindset and experience and plug it into our real-world effort on day one!

Job Duties

- You’ll perform, analyze, organize, and help design practical experiments to drive the development and application of Alitheon’s core software technology by generating test data and evaluating real-world problems.
- You’ll work in the lab as a practical “nexus” with technical leadership, optical consultants, and software engineering colleagues to tie together pieces of our system in daily practice.
- As your background permits, you will participate in systems specification, design, in-house and partner builds in optical engineering and machine vision.
- You will function as part of a small imaging team to also assess candidate imaging hardware for internal and production scenarios, as well as help characterize
environmental conditions and requirements. This hardware will range across consumer, professional, and cutting-edge beta prosumer imaging hardware.

- You will use a range of off-the-shelf, internal tools, and some of your own approaches to collate, curate and analyze data, to feed into both algorithmic and engineering research.

Keywords: Optics, physics, optical engineering, machine vision, laboratory administration, research, research administration. Software engineering. Laboratory automation. Camera control, photography.

Who You Are:
Interests:
- You like solving problems, understanding the world of science and technology, and blending disciplines.
- You like a hands-on focus and learning new skills and tools. Getting things done in the lab, the local makerspace, or your garage puts a smile on your face.
- You are facile with learning and using multiple software applications and light programming as needed.
- You understand scientific and engineering rigor in documentation and data handling, and feel a sense of pride and stewardship in good research data.
- Not required, but you ideally know about optics at an undergraduate level or beyond, or have acquired comparable lab experience, industrial camera or machine-vision expertise. There is room to grow, but you will have to hit the ground running.
- You want to translate technology to apply real-world problems, and like the benefits of a startup and the reach it can give your work.
- You like working in smaller groups and are excited about the variety and growth opportunities of a startup.

Required Qualifications

Background, Coursework, Skills:
Education:
- Scientific or engineering degree, preferably quantitative: Physics, Applied Physics, Engineering & Applied Science, Electrical or Optical Engineering. Other scientific and technical degrees (Biology, Geoscience, etc.) will be considered in conjunction with relevant experience; we come from a range of backgrounds, and believe in transferable skills.

Skills:
- You have practical laboratory or workshop experience.
- Laboratory record-keeping and quantitative methods
- Technical computer-literacy, including solid user-level familiarity with desktop operating systems (OSX, Windows) and the Unix environment. Basic ability to do program in at least one procedural programming language (e.g. Java, C variants, etc) and one scripting
language (e.g. Python, Ruby, PHP, etc). Additional languages, libraries, and development experience are a plus but not required.

- Be able to understand and be interested in learning the fundamental aspects of imaging optics, photographic parameters, focus, resolution, sensors, basic photographic and laboratory manipulation of images.

Work and Research Experience:

- 1-3+ years of relevant work experience in industrial or academic contexts. More recent or new graduates are welcome to apply, with demonstrated relevant internship, lab, or side-project experience. This position can be adapted to candidates with different levels of experience, including more senior or experienced candidates.

Other Desirable Qualifications

Pluses:

- Laboratory instrumentation control and automation (any discipline).
- Computer science or software engineering coursework; any additional programming skills.
- Experience with programming to drive devices such as cameras, microcontrollers, etc.
- Interest in image processing, machine vision, or robotics.
- Experience in computer or machine vision, or similar implementation-focused academic work.
- Laboratory optical experience, classical or photonics (any discipline).
- Interest in photography.
- Practical electronics.

Additional Pluses:

Opportunities

Work Environment
We are located close to downtown Bellevue. We have a professional, fun environment where we work hard but also respect a work-life balance for team members. We offer paid time off, medical, dental, vision, 401K and other benefits.

Travel Requirements
There is the potential to occasionally travel inside the US when we survey or deploy at client sites, and to collaborate with technical partners and advisors (mostly local). However, this position is not expected to travel often.
Company Address
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