Algorithm Engineer

Full-time in Boston, Massachusetts

About Redpoint Positioning

Redpoint builds high-precision wireless positioning technology that keeps people and machines safe and gets jobs done efficiently. Our patented UWB and computer vision platform provides unprecedented visibility into factories, warehouses and other industrial sites, and powers essential automation and safety applications such as AGV crew safety, forklift collision avoidance, and real-time workflow management. Our customers include some of the largest companies in the world in e-commerce, industrial vehicles, AGVs and robotics.

We're a global company with offices in US, China and Europe but we are also a lean company that moves at 120 mph. Decisions happen quickly, and everyone's work ships and matters. If you want to be challenged, move fast and see your impact right away, contact us.

The Role

We're looking for a self-driven engineer to join our algorithm team, someone who can take a hard, loosely defined problem and get it done. At Redpoint you won't just get a spec and a ticket. You'll get a problem and the trust to solve it.

Your core work involves turning noisy radio, vision and other sensor data into robust positions that people, robots and safety systems can rely on for their actions. You'll own core algorithms and system design, and partner closely with our solutions team to resolve field issues and develop custom solutions for customers, turning them into lasting improvements to the core product. You'll also go wherever the problem leads: firmware implementation, tools or a customer's factory floor.

What You'll Do

A problem can be a new capability, a performance limit in our core algorithms, or an issue from the field. You'll take it from definition through data collection and analysis, to prototyping a solution and validating it at customer sites. You'll also help turn your solution into production code.

- Design, improve and own core algorithms for localization, tracking, sensor fusion and data communication, and the system architecture around them.

- Identify and define problems: work closely with the solutions team and end users to identify and reproduce issues. Chase down the root cause wherever it sits: in hardware, firmware or the environment.
- Turn field fixes into general solutions: take what works at one site and make it work everywhere, in the core product.
- Validate solutions through simulations, bench tests and field experiments, including developing test plans, building tools when needed, collecting data and analyzing results.
- Work with other engineers (algorithm, firmware, hardware), product and customer teams to get things over the line.
- Go on-site when the answer is only out on the floor.
- Track the state of the art and bring promising ideas into our roadmap.
- Contribute to expansion of our IP portfolio and participate in international standard development.

Who You Are

- **An owner's mentality.** When you take on a project, it's yours. You don't stop at "I did my part." You keep going until the problem is solved, and if you get stuck, you find another way.
- **Driven and resourceful.** You see what needs doing and do it without being asked. You find ways to get it done, ask the right people, and build the tool if it doesn't exist.
- **Hard-working and resilient.** You bring energy and stay focused when data is messy, experiments fail or priorities shift.
- **Multi-dimensional.** You're strong in theory and coding, and comfortable getting hands-on with hardware and bench setups.
- **Evidence-driven.** You prove it works with measurements, not assumptions.
- **Direct.** You're comfortable challenging others and being challenged. You say what you think, defend it with data, and change your mind when the evidence says you're wrong.

What You Bring

- A strong foundation in math: probability, statistics, linear algebra and optimization
- Solid programming skills (Python plus C/C++ or similar), and a systematic, collaborative development workflow.
- Fluency with AI-assisted development tools (Claude Code, Codex, etc.)

- Skills you need for the job. Prior experience is highly desirable:
  - Statistical signal processing: signal, channel and uncertainty modeling, filter design, estimation, and Kalman and Bayesian filters for sensor fusion
  - Digital and wireless communication systems, including sensor networks, from protocol design to system performance evaluation
  - Simulation, prototyping and field validation: able to take a concept and make it work in real products and custom deployments.
- Experience driving a project to completion yourself.
- A degree in CS, EE, math, physics, robotics or a related field is desirable but not a must-have; equivalent proof of what you can do counts.

What You'll Get

- **World-class products with real reach.** What you build runs in the facilities of some of the world's largest companies, and it makes a real difference in people's daily lives.
- **A top-notch, collaborative team.** Talented engineers who share knowledge freely and push each other hard. We don't sugarcoat.
- **Trust and no lanes.** You own it, and we'll support you. If you see a problem outside your role, step up and take it on.
- **Room to innovate.** We welcome new ideas and new technology, and will support you to pursue them.
- **Rewards for overachievers.** When you go above and beyond, it shows up in your growth, your responsibilities and your compensation.
- Competitive salary, benefits and equity

Interested? Drop a note to jobs@redpointpositioning.com