

Software Engineer - Eng I, II or Senior GNC/SLAM

US Persons Only

Location: Pittsburgh, PA (on-site only, relocation assistance available)

Status: Full-time, open immediately (November 2021 Posting)

Compensation:

Base Salary: \$75k-\$105k (wide range due to spread in expertise that we're interested in)

401k: 4x match on 3% of employee contribution (12% addition to base)

Health Care: \$200/month subsidy per employee

Equity: 1 year cliff, 48 months to 100% vest, contributed monthly.

Who we are:

KEF Robotics Inc. is seeking talented Robotic Software Engineers to join our team and develop flight software for autonomous UAVs. Founded December 2018, we're on a strong trajectory in a disruptive technology area, and have already attained a number of significant milestones:

- We were featured in the [New York Times](#) in our first 100 days as a company
- We finished as [the top qualifier of 424 teams in Lockheed Martin's AlphaPilot competition](#) in our first six months as a company, ahead of numerous talented research groups
- Significant annual revenue growth and 20+ months 'runway'

KEF was founded by an experienced R&D team, which arrived at drone autonomy after achieving recognition as the premier spacecraft navigation software development team in the world (the tech we pitched and built was going to land us on the Moon and Saturn's Enceladus!). We've honed an ability to operate efficiently, and know how to get our message out, so you'll be joining a competent and cohesive team with no extra baggage. Why work at KEF:

We limit distractions and offer you a huge amount of freedom. If our engineers need equipment or outside connections to solve a problem, we will get it for them immediately. Our goal is to help you become a world-class expert within three years, and our philosophy is to bring in great talent and let them get to work.

At this early stage we're offering equity, and we offer big-company benefits where we can: subsidized healthcare for all employees, unlimited vacation (take it), and a generous 401k match. And while we tackle huge technical challenges and demand excellence, working hours are reasonable--we presume that the best talent will seek robust lives outside the office.

Finally, we're committed to diversity on the ground floor and will take the time to train great talent from unusual backgrounds. We want personality and drive over experience and expertise.

Who we're looking for:

We're looking for smart, bold, driven, humble researchers who bring a great attitude to work and want to help us draft out, build, and polish a great company. We need fearless learners and active questioners who dig into research and development and solve technical problems.

Responsibilities:

- Develop state-of-the-art autonomous drones capable of flying rapidly through challenging environments
- Research and implement novel guidance, navigation, and control (GNC) and machine learning (ML)
- Optimize algorithms for real-time computation on embedded platforms
- Improve physics based simulation environments and validate autonomous behavior within simulation

Strongly Recommended Skills:

- Empathetic and collaborative team player
- Proficiency with C++ and Python
- Experience with robotics state estimation and simultaneous localization and mapping (SLAM) algorithms
- Experience programming for embedded environments
- Familiarity with Linux and Linux tools
- Experience developing computer vision algorithms
- Field and lab testing experience

Bonus Skills:

- Machine learning and experience programming within a popular ML framework (TensorFlow, PyTorch, etc)
- Hardware prototyping skills (3D printing, soldering, assembly)
- GPU programming (CUDA / OpenCL)
- Familiarity with nonlinear optimization techniques
- Familiarity with ROS (Robot Operating System)
- Unreal Engine / Unity experience
- Julia programming experience
- Clear, concise technical writing skills