

## **Quiet Machines Machine Learning Robotics Engineer Job Posting**

Quiet Machines is a funded, Pasadena-based startup seeking to improve the logistics of sports videography through advances in machine learning and artificial intelligence, computer vision, and robotics. It is developing and fielding autonomous robotic cameras for sports video production. The company continues to mature prototypes utilizing cutting edge machine learning, computer vision, and controls to automate multi-camera video production. It offers exciting hands-on opportunities for very capable and energetic engineers to innovate, solve challenging technical problems at the leading edge of various technologies, and work closely with video production professionals to field prototypes in sporting events to shape future products.

The ideal candidate will have deep knowledge and hands-on experience in machine learning, computer vision, and robotics with fluency in multi-disciplinary software development. She/he will be independent, self-motivated and able to work in small teams in an R&D environment with high-level guidance from stakeholders.

We are considering both experienced and highly skilled entry-level engineers with a background in engineering or computer science with hands-on experience in robotics systems to join our team. The candidate will:

- Develop intelligent vision-based controllers for robotic camera heads to robustly and smoothly track athletes in the complex and dynamic environment of sporting events
- Develop algorithms to autonomously coordinate multiple camera heads to support live video broadcasting
- Work closely with sports broadcast professionals to ideate design changes and field-testing strategies and incorporate customer feedback to rapidly shape future design iterations for this user-driven company
- Grow and work with a small engineering team, engaging interns from local and national universities

This work will provide opportunities to brainstorm and consult with veteran robotics Ph.D. engineers with experience in industry and the space sector who currently advise Quiet Machines.

### **Required:**

- Ph.D. or M.S. in Computer Science or Robotics, or B.S. with five-plus years of experience
- Background in machine learning, computer vision, and motion control
- Strong analytical, design, and hands-on skills in vision-based robotic control
- Ability to conceptualize all required development stages of a robotic system, and to coordinate their execution across the team
- Proficiency in software design and fluency in C++ development, version control, and CI/CD in a Linux environment

### **Desired:**

- Experience with programming in CUDA, Python, JavaScript, OpenCV
- Experience with machine learning frameworks (PyTorch, TensorFlow, or similar)
- Experience with wired (serial and CAN bus) and wireless protocols (Wi-Fi, Bluetooth, ESP-NOW, Zig-Bee, LoRa)
- Experience deploying software on target hardware
- Comfortable working outside area of expertise as required

**US Work Authorization Required**