Job Descr. Embedded Systems Engineer

Job Title: Embedded Systems Engineer (Computer Vision & AI)

We are seeking for passionate and dedicated Embedded Systems Engineer with deep knowledge in the embedded domain to join our team. This role is for an individual with expertise in C/C++, who is enthusiastic about implementing computer vision and AI algorithms on embedded devices, particularly (but not limited to) ARM-based Microprocessors (MPUs) and Microcontrollers (MCUs) with hands-on experience in supporting the complete embedded-product cycle from concept to prototyping, production, and troubleshooting.

Your Responsibilities:

1. **Algorithm Implementation:** Design, develop, implement and test advanced AI and computer vision algorithms on embedded systems.
2. **Code Optimization:** Perform code optimization to ensure the best performance under tight power budgets to meet customers' needs. Apply your understanding of memory management and low-level computing to improve efficiency and processing speed trade-offs among power, performance, and memory.
3. **Collaboration & Communication:** Collaborate effectively with a multidisciplinary team, including AI researchers, data scientists, and hardware engineers, to deliver optimal solutions. Communicate your ideas clearly to both technical and non-technical stakeholders.
4. **System Testing & Debugging:** Design and implement comprehensive testing processes to ensure the stability and reliability of our software. Debug and resolve any issues discovered during the testing phase.
5. **Documentation & Reporting:** Create detailed reports and technical documents related to the system design, implementation strategies, and any issues faced during development.

Your Skills and Experience:

1. **Education:** Bachelor's or higher degree in Computer Science, Electrical Engineering, or a related field.
2. **Programming:** Proficiency in C/C++ programming. Experience with other programming languages like Python is a plus.
3. **Embedded Systems:** Solid understanding of embedded systems architectures and experience with embedded system development, particularly with ARM-based MPUs/MCUs. Ability to design systems considering trade-offs among power, performance, and memory. Experience in Yocto Project and development of custom Linux distributions for embedded devices.
4. **Computer Vision & AI:** Experience in developing and implementing computer vision and AI algorithms on embedded systems. Familiarity with machine learning libraries and frameworks such as TensorFlow or PyTorch is a plus.
5. **Tools:** Proficiency in using version control systems such as Git and embedded system development tools.
6. **Communication:** Excellent written and verbal communication skills in English.

Bonus Points/Desirable Skills:

1. **Experience with AI/ML Libraries:** Experience with AI/ML libraries and frameworks like TensorFlow Lite, ONNX, or OpenCV.
2. **RTOS Experience:** Experience with Real-Time Operating Systems (RTOS), such as FreeRTOS, Zephyr, or embedded Linux.
3. **Hardware Knowledge:** Understanding of the hardware aspects of embedded systems, including digital signal processors (DSPs), graphics processing units (GPUs), and FPGAs.
4. **Industry Experience:** Experience in a relevant industry, such as automotive, robotics, IoT, or wearable technology.
5. **Certifications:** Certifications related to embedded system design, such as ARM's certification programs, would be a plus.

Benefits:

And these are some of the perks you receive when you join Irida Labs:

- Work in a dynamic and pleasant environment at a fast-paced company
- Discuss and interact with tech-leaders at a global scale, using cutting-edge technology and driving new markets

- Competitive remuneration package
- Huge room for creativity and innovation
- Private medical insurance