C++ Engineer
Embedded Systems and Computer Vision

About Alcatraz AI:

We are a dynamic, innovative team focused on developing cutting-edge embedded systems for facial authentication. Our work spans across multiple domains, including image processing, video acquisition, system programming, and machine learning models integration. We are seeking a versatile C++ Engineer to join our team and contribute to the development of our state-of-the-art products.

Job description:

As a C++ Engineer, you will play a crucial role in the development and optimization of our embedded systems. Your role will encompass a wide range of responsibilities, from hardware components integration to high-level business application design. You will work on video processing, streaming, and data retrieval, as well as develop algorithms for various image processing tasks. Additionally, you will contribute to non-machine learning computer vision projects such as camera calibration and the implementation of classical CV algorithms.

Key Responsibilities:

- **Developing Video Pipelines:** Work on video applications for acquisition, processing, and streaming of video data from multiple cameras.
- **Algorithm Development:** Develop and optimize algorithms for image processing, data retrieval, and other related tasks.
- **System Programming:** Contribute to the development of low-level system components for performance optimization.
- **Computer Vision:** Implement and integrate classical computer vision algorithms, including those found in libraries such as OpenCV.

- **Machine Learning Integration:** Work on integrating in-house machine learning models into the product pipeline..
- **Business Application Development:** Design and develop business logic and application-level features, including face access control pipelines and tailgating detection systems.
- **Collaborative Development:** Work closely with cross-functional teams to ensure seamless integration of various system components.

Qualifications:

- **Educational Background:** Bachelor's or Master's degree in Computer Science, Mathematics, or related STEM field.
- **Experience:**
  - Junior/Mid: 2-3 years of experience in C++ development, preferably in embedded systems or related fields.
  - Senior/Principal: Extensive experience in C++ development with a proven track record of leading projects and mentoring team members.
- **Technical Skills:**
  - Strong proficiency in C++ programming and software design principles.
  - Experience with system-level programming and/or embedded systems development.
  - Understanding of hardware-software integration and real-time system constraints.
  - Comfortable with multi-threaded environments and inter process communication.
  - Good grasp of data structures and algorithms.

- **Soft Skills:**
  - Excellent problem-solving skills and attention to detail.
  - Ability to work independently and as part of a small, agile team.
  - Strong communication skills and the ability to collaborate effectively with cross-functional teams.

Preferred Qualifications:

- Familiarity with video processing and streaming technologies.
- Knowledge of image processing and classical computer vision algorithms.
- Experience with computer vision libraries such as OpenCV.

- Knowledge of fast data retrieval and optimization techniques.
- Familiarity with integrating machine learning models into existing systems.
- Modern C++ practices

Why You Should Join Alcatraz:

Alcatraz AI offers a cutting-edge solution that represents the future of physical security access control, highly valued by our customers.

Our startup enjoys strong market momentum and tremendous potential for growth.

We foster a culture of innovation, encouraging builders, makers, and creative thinkers to thrive.

Alcatraz AI is committed to equal opportunity employment.

We know you're already intrigued by the role, but let us share more about the our **extensive benefits and perks package we offer:**

- Stock options
- Premium Additional Health Insurance
- Unlimited time off
- Food vouchers
- Site bonus for transport / internet expenses
- Co-sponsored Multisport / Coolfit card
- Office massages
- Snacks & drinks

Please send your resume to careers@alcatraz.ai.