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## Industrial Light & Magic

San Francisco, California - United States

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## Sr. R&D Engineer - Comp. Vision & Data Cap.

### Description

This position develops artist-driven software systems and techniques that advance the state of the art in high-end feature film visual effects production, focusing on 2D and 3D motion tracking, image-based data capture, and 3D reconstruction of both rigid geometric models and high-fidelity models of human bodies and faces. The duties are a mix of research, development, maintenance, and end user support, as an integral part of the creative process on major motion pictures such as Star Wars, Avengers, Transformers, and theme park ride films.

Research and develop innovative algorithms, software, systems, and techniques.

Work directly with artists, end users, and production crews in deploying technology on shows in active production.

Help maintain and support a wide variety of proprietary and commercial computer vision and data capture tools.

Keep abreast of the state of the art in computer vision research as well as the commercial software industry, and act as a knowledge resource in the area.

Collaborate with other members of the engineering team, leading projects and project teams depending on seniority.

### Requirements:

Bachelor's degree in Engineering or Scientific discipline, advanced degree strongly preferred.

2-4 years of professional or post-doc experience in applied computer graphics or vision.

In-depth knowledge and demonstrated experience with computer vision, numerical optimization, and structure from motion algorithms and techniques.

Strong software engineering and design skills and demonstrated experience.

Experience with open source numerical software libraries such as OpenCV, minpack, lapack, etc.

Experience with commercial 2D and 3D production tools a plus (Maya, Vicon, Boujou, 3DEqualizer)

Excellence in problem solving and balancing quick turnaround with long-term quality.

Must be able to work well with a wide range of personality types, including non-technical artists.

Must be detail oriented and organized, possess strong communication skills, and be able to prioritize a variety of tasks efficiently.

**Primary Job Duty:** R&D / New Technology

**Primary Software:** OpenCV, minipack

**Secondary Software:** lapack

**Salary:** DOE

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