Research Internship 3/3/2005



# Job Position: Research Internship in Computer Vision Location: Sunnyvale, California

### The Company

Intuitive Surgical, Inc. (http://www.intusurg.com) has developed a computer-enhanced minimally invasive surgery system that uses proprietary electronics, advanced mechanics, and enhanced visualization to greatly improve surgical technique and take surgical precision far beyond what is possible today. The da Vinci<sup>IM</sup> Surgical System is a revolutionary surgical technology intended to eliminate the major obstacles to widespread adoption of Minimally Invasive Surgery (MIS). It is designed to transform a broad range of open procedures to minimally invasive procedures by making MIS more precise and easier to perform.

# **Position Responsibilities**

This research intern will work on advanced research projects in the Applied Research Group. Specifically, this intern will contribute to projects using 3D vision as well as broad computer vision techniques. The successful candidate must excel in a high-energy team environment, be able to drive to solutions from rough requirements, and have a commitment to produce a complete solution.

## Skills/Experience

- Able to plan, schedule and conduct independent research with little supervision.
- Experience with advanced image processing algorithms such as stereo computation, feature extraction, color processing.
- C/C++ under Linux, OpenGL, X Windows, graphical interface.
- Matlab, OpenCV, Intel IPP experiences a plus.
- Experience in real-time video processing and multithreaded programming is a plus
- Comfort with all phases of the product development lifecycle including design, implementation, debug, system test and clinical test.
- Excellent communication and documentation skills
- Interest in medical applications of robotics

#### Contact

Gary Zhang, PhD Senior Vision Analyst gary.zhang@intusurg.com