

Intuitive  
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## Research Software Engineer

Company: INTUITIVE  
Location: Sunnyvale, California, U.S.A.  
Department: Applied Research  
Schedule: Full Time  
Requisition ID: 190775

To apply, please visit: <https://careers.intuitive.com/jobs/190775?lang=en-us>

You can also send your resume directly to [Omid.Mohareri@intusurg.com](mailto:Omid.Mohareri@intusurg.com) or [Simon.DiMaio@intusurg.com](mailto:Simon.DiMaio@intusurg.com)

### Company Description:

Intuitive designs and manufactures state-of-the-art robot-assisted systems for use in minimally-invasive interventions. These systems are revolutionizing the way in which surgery is being done and offer a unique platform that is being used routinely at hospitals worldwide for exploring the potential of digital surgery. Joining Intuitive means joining a team dedicated to using technology to benefit patients by improving surgical efficacy and decreasing surgical invasiveness, with patient safety as our highest priority.

### Primary Function of Position:

The Applied Research group within Intuitive Surgical has an immediate opening in Sunnyvale, CA for a research engineer with a focus on Computer Vision, Machine Learning and Software development, contributing to new technology development in the area of 3D scene understanding/reconstruction and spatial AI systems for next generation robotic surgery platforms. This role is an exciting opportunity to join a newly formed team and to contribute to its growth and it will give you an opportunity to test your knowledge in a challenging problem solving environment.

The successful candidate must excel in a high-energy, focused, small-team environment, and have a commitment to high quality research prototypes and concepts. A strong sense of shared responsibility and shared reward is required.

As part of the research team, immediate responsibilities include:

- Contribute to research projects that develop a variety of algorithms and systems in computer vision and machine learning
- Participate in integration of new ML/CV algorithms into existing and future robotic platforms
- Participate in the development of prototype 3D recognition systems that scale to large clinical datasets
- Participate in the development of prototype dense 3D reconstruction systems based on multi-view image sensors
- Train machine learning and deep learning models on a computing cluster to perform visual recognition tasks, such as segmentation and detection

- Contribute to building new clinical datasets and data pipelines
- Support academic collaborations in related fields.

**Skill/Job Requirements:**

Competency Requirements: (Competency is based on: education, training, skills and experience).  
In order to adequately perform the responsibilities of this position the individual must have:

- Master's degree in computer science, electrical and computer engineering, or Bachelor's degree with relevant industry experience in software development and CV/ML technologies
- Minimum of three (3) years of industry or research lab experience developing software for computer vision and machine learning applications
- Strong understanding of machine learning: you should be familiar with the process of building effective learning systems (data collection, training, evaluation, and making iterative improvements)
- Strong hands-on experience with at least one of the main stream deep learning frameworks such TensorFlow, PyTorch, BLVC Caffe, Theano
- Strong hands-on experience with Python (proficiency), C/C++ (proficiency), Shell Script, Matlab
- Strong engineering practices, debugging/profiling skills, familiarity with multi-threaded programming
- Ability to train machine learning and deep learning models on a computing cluster to perform visual recognition tasks, such as segmentation and detection
- Hands-on experience with GPU accelerated algorithms and implementations
- Excellent communication skills both written and verbal
- Interested in early phases of product exploration and iteration based on incomplete requirements
- Self-starter and able to work in a collaborative and results-oriented environment
- Able to view live and recorded surgical procedures.

We are an AA/EEO/Veterans/Disabled employer.

We will consider for employment qualified applicants with arrest and conviction records in accordance with fair chance laws.