

Sr. Image Processing Engineer – Karl Storz Imaging

As the largest privately held medical device company in the world, Karl Storz has achieved global preeminence in endoscopes and medical imaging devices used in minimally invasive surgery. Karl Storz Imaging in Goleta, CA designs develops manufactures and services advanced video imaging systems and accessories. Due to the way the company is run and managed, they have never had to do U-turns or apply the brakes with downsizing or lay-offs. They are without a doubt a leader in the industry! The website is: www.karlstorz.com

Due to increased sales, we have a position open for a Sr. Image Processing Engineer. We offer full relocation and a very competitive salary.

(Description included below)

Sr. Image Processing Engineer

Location: **Goleta, CA**

Job Code: **6007**

Company: **KSI**

Shift: **Mon-Thur, 10 hour day**

Employment
Duration: **Employee Full Time**

Pay Grade:

Description

Job Summary:

We are looking for a Sr. Image Processing Engineer to produce and analyze advanced designs and develop image processing algorithms for video display, and image storage systems. Perform research and development to produce new image processing solutions for use in current and future products. Provide analytical support of image processing system performance to the product development teams. Design test procedures, test fixtures, and other testing support. Perform competitive analyses. Make high-impact design decisions.

Duties and Responsibilities:

- Algorithm Development
 - Research new image processing techniques and technologies for camera systems and develop algorithms and solutions for use in future and existing camera products.
 - Develop image and video processing algorithms for acquisition based on CCD and CMOS sensors for 1-chip and 3-chip camera systems and for display on HD/NTSC/PAL systems.
- Analyses and Modeling
 - Perform system modeling of camera pipeline components, including imagers and digital image processing modules.
 - Perform signal analysis to evaluate quality of image processing algorithms and systems.
 - Perform analysis and characterization of imaging sensors.
 - Use video rendering to illustrate effects of image and video processing features and produce corresponding image quality metrics.
- Design
 - Use MATLAB/Simulink environment to produce FPGA-based modules to implement camera processing, image and video processing.
 - Verify FPGA-based modules against system requirements within MATLAB/Simulink environment.
 - Run proof-of-design MATLAB simulations.
- Project Development Teams Support
 - Provide objective image analysis assistance during various design phases.
 - Contribute design ideas, constraints, trade-offs, and concerns to the Project Teams

- Document the results of the analyses in technical reports.
- Standards
 - Review and understand the following standards
 - Video Standards (HD, NTSC, PAL, VGA)
 - Image Compression Standards (MPEG-2 and MPEG-4)
 - Video Interfaces (HDMI, HD-SDI, 3G-SDI, DVI, S-video, LVDS, etc.)
 - Image and Video Storage Formats (tiff, bmp, DVD, BluRay, HD-DVD)
- General Engineering
- Image processing technical lead for projects.
- Produce design specifications that meet company quality standards.
- Make high-impact design decisions to meet project requirements and product specifications.
- Technical mentor to less experienced engineers.
- Provide support and technical direction for the generation and maintenance testing.
- Will spend part of his/her time as a member of continuous improvement teams undertaking projects and seeking ways to improve the quality of KSI's products and services.

Additional responsibilities:

- Quality – all activities associated with this position must be performed with the highest level of quality standards recognizing that the products are used in the medical industry.
- Durability – all activities associated with this position must address the long-term durability of the design.
- Efficacy – all activities associated with this position must consider the devices final application and use.
- Performs other related duties as assigned by supervisor.

Required Skills and Experience:

- Bachelors of Science degree in Electrical Engineering, emphasis in Signal Processing or equivalent.
- Masters of Science in Image or Video Processing preferred.
- 5+ years experience in image processing design or related field.
- 7+ years in digital system design and analysis, DSP techniques, algorithm development, and applications.
- Knowledge of image and video processing techniques, including image enhancement, auto exposure control, color correction, noise reduction, gamma correction, white balance, CFA demosaicing, etc.
- Knowledge of DSP techniques, including fixed-point processing, sampling theory, interpolation, filtering, etc.
- Knowledge of colorimetry, image sensing technology, and digital video formats.
- Knowledge of linear system decomposition and analysis.
- Experience with using computer simulation software (MATLAB, Simulink).
- Experience with digital system design and analysis.
- FPGA design experience preferred.
- Experience with real-time algorithm development, preferably in video processing.
- Experience with and knowledge of HD and NTSC/PAL video systems.
- Familiarity with endoscopy a plus.

Work Schedule

Monday-Thursday (10h/day) or Monday-Friday (8h/day).

Benefits:

- Medical / Dental / Vision
- 3 weeks vacation plus sick days
- 401K plus company match
- Section 125 Flexible Spending Accounts
- Life, STD, LTD & LTC Insurance
- Tuition reimbursement (Up to \$5,250 per year)
- KARL STORZ University and other training and development programs.
- Fitness reimbursement up to \$200 annually
- And much more!

About the Company:

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How to Apply: Send your resume to sdahl@mdmrecruiting.com