CMOS Sensor Characterization and Product Engineer:

Position Location: Great Rochester Region  
Duration: Full time  
Company: Dynamax Imaging (DMI)

DMI is the world leading CMOS image sensor solution provider for both emerging market and variety of mainstream industrial imaging markets, such as Machine Vision, Intelligence Traffic Monitoring, Homeland Security and Surveillance, Medical, Life Science, Scientific Imaging, Biometrics, HDTV Camcorders, TV Broadcasting, Photography, Entertainment, Cinematography, Government, Military markets etc.

Primary Job Descriptions:
The CMOS Sensor Characterization and Product Engineer works with both R&D and testing engineering team to scientifically characterize performance of pixel, sensor, and camera technology, develop/debug test programs, using strong analytical skills to objectively analyze design trade-offs and debug problems in design/process.

Responsibilities:
1) Supports CMOS Imaging technology development through detailed scientific characterization  
2) Responsible for complete electrical and optical characterization of various CMOS Image sensors and reference design.  
3) Improve or create new characterization methodology based on customer and market requirements  
4) Prepares detailed descriptions for tests required during design validation cycle  
5) Validates automated silicon verification with bench testing and measurements  
6) Works with Process Integration/Layout design and Process Simulation team to characterize new designs/process and suggest new process experiments based on characterization data  
7) Acts as primary feedback source to various inter-disciplinary teams for silicon data on various pixel designs and process designs  
8) Works with test engineering team to develop automated wafer-level characterization programs  
    Develops special test routines in C++/Matlab.
9) Works with other teams to solve yield issues related to pixel/sensor/camera performance

QUALIFICATIONS:
1) Knowledge of Analog/Mixed Signal/Digital CMOS circuits, CMOS fabrication process and CMOS device physics  
2) Detailed knowledge of CMOS sensor characterization methodology, including photon-transfer-curve (PTC) measurement, QE, dark current, PRNU, DSNU, read noise floor, MTF, angular response, image lag  
    Knowledge of basic optics involved in CMOS sensors  
3) 3+ years programming experience with Matlab/C++  
4) In-depth knowledge of CMOS sensor ISP  
5) Strong team player and good communication and presentation skills  
6) self-motivated and be able to work independently
EDUCATION AND EXPERIENCE:

1) BS in Electrical Engineering or Physics related field or equivalent work experience; MS is a plus.
2) Minimum of 3+ years of hands-on experience in characterization of CMOS pixel/sensors.
3) Minimum of 3+ years direct hands-on experience in a digital camera system design, or related firmware, hardware, optics fields.