Data Scientist Machine Learning Software Engineer Student Intern/Co-Op

**Type of position:** Full- or part-time depending on individual qualifications/experience

**Start / End date of position:**
- Part Time: Immediate / April 30th 2021
- Full Time: Dec 11th 2020 / April 30th 2021

**Desired majors:**
Computer Engineering, Computer Science, Computer Engineering, Electrical Engineering, Imaging Science, Optics, Game Design and Development

**Class levels:** 3rd (Junior) year through doctorate

**Job Description:**
Simulated Inanimate Models LLC (SIM) designs and manufactures hydrogel phantoms for surgical education. SIM’s augmented reality (AR) training platform delivers appropriately timed medical curricular content. This complete training system not only utilizes realistic bleeding physical models to develop motor memory, but also incorporates a smart step-by-step guide through the use of video-processing that is capable of real-time performance analysis and feedback. The SIM training system offers a unique platform for training, assessment, and credentialing of trainees, surgeons, and auxiliary operating room staff. Using an AR headset integrated with parallel processing hardware and machine learning algorithms, 3D spatial coordinate system allowing instrument position detection, and software that delivers training instruction at the appropriate timing. The AR headset camera will be used to detect tissue (skin, fat, muscle), organ features (tumor, vessels), blood, instruments, and hands/fingers. Machine learning will drive the curricular content and create a score that will be used for performance analysis.

YouTube video of our product in action: https://www.youtube.com/watch?v=WWG8R4n67yk

**Responsibilities:**
- Experience with TensorFlow and NumPy Arrays
- Experience with Python
Experience with Binary classifier Machine Learning Model (MLM)
Experience with image data using 1080p RGB image, camera stationary
Ability to tune hyper parameters MLM
Ability to work in Linux environment a plus
Supervised machine learning model
Utilize best coding practices and software engineering processes

Qualifications:

A genuine interest in developing medical training scenarios
Ability to view real surgery videos showing internal organs, blood
40-hour work week (typical)
Past history of projects and experience with Machine Learning
Experience with Linux
C++, experience a plus
Experience with NVIDIA processors a plus
Critical thinker and problem solver
Attention to detail
Ability to work independently

Location: Pittsford, NY
Salary: $20-$25/hr. depending on level of experience
Approx. hours/week: 40

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Primary contact: Steven Griffith
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Phone: 585-734-7975

To apply:
Email sgriffith@simsurgeries.com with your cover letter, resume, and transcripts attached.
Please provide a link to your LinkedIn profile if you have one