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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

Physical Address: 160 Office Park Way, Rochester, NY

Primary contact: Steven Griffith

Email: sgriffith@simsurgeries.com

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