Company Background

Health Technology Innovations LLC (HTI) is a privately-held, Oregon-based company founded in 2017 by a group of former Intel engineers and OHSU scientists. HTI’s advisory board consists of leaders in the IT, semiconductor and medical fields dedicated to developing solutions for medical image analysis. HTI is partnering with OHSU on improving Cryo-Electron Microscope (cryo-EM) workflow-based AI/ML research and development.

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Project Background

In this phase of HTI’s project, CryoDiscovery, the focus is on researching ML techniques to analyze cryo-EM 2D images and their meta-data, for class sorting.

Intern Requirements

Intern 1:

Graduate Student, Knowledgeable in Machine Learning theory and application development

20+ hours/week: 3 months duration. Starting date negotiable

Minimum Requirements

1. Knowledge in both the theory and implementation of Machine Learning models using Keras/TensorFlow
   a. Ability to code and evaluate deep learning models, cost functions and assess the pros and cons.
   b. Assess the performance impact for both the training and inference phases and optimize the implementation.
2. Highly proficient in multi-threaded programming in Python and C++
3. Experience with Linux (we use Ubuntu) systems
4. GIT based disciplined approach to development and integration
5. Good written, oral communication skills

Additional Desirable Requirements

1. Software packaging tools such as Docker
2. Knowledge of cloud computing environment (e.g. AWS/Azure/Google Colab)

Intern 2:

Graduate Student, Knowledgeable in Machine Learning mathematical algorithms

20+ hours/week: 3 months duration. Starting date negotiable

Minimum Requirements

1. Strong knowledge in image processing ML algorithms analysis and investigating new methods
   a. Ability to design/analyze deep learning models, cost functions and assess the pros and cons.
   b. Assess the performance impact for both the training and inference phases
2. Experience in multi-threaded programming in Python and C++
3. Good written, oral communication skills