

Position: Machine Learning with CANDLE Developer Software

Location: Remote

Member Type: Unpaid Voluntary Internship

Organization Description

The Open Health Systems Laboratory (OHSL) is a public benefit corporation that builds, supports and manages project teams to improve research and diagnosis outcomes. We have technical expertise in utilizing the latest developments in information technology, namely informatics, communication, natural language processing, and data collection and mining to bring solutions to our clients.

OHSL was originally created in 2008 as a program of the International Network for Cancer Treatment and Research (INCTR) , a not-for-profit organization dedicated to helping build capacity for cancer research and treatment. In 2011, OHSL incorporated as an independent non-profit organization, and re-incorporated in 2017 as a public benefit corporation (B-Corp).

Internship Description

CANDLE is software for deep learning at scale. In the early stages, the software was developed for execution through the Department of Energy's leadership computing resources. Currently , the software has been configured on several computing clusters. The intern will deploy CANDLE on a new architecture and complete testing and documentation for a U-Net sample reference implementation. U-Net is a convolutional network architecture designed for image segmentation.

Interns will learn concepts and implementation details of high-performance computing, machine learning, and Unix. Tasks include detailed analysis of Bash shell scripts, tracing execution through interconnected programs written in Swift/T and Python, and working with the Keras library for machine learning.

This internship is a fantastic opportunity for high school students interested in pursuing careers in computer science and artificial intelligence.

Qualifications

- Currently enrolled in high school
- Working knowledge of Unix
- Familiarity with Python
- Some knowledge of artificial intelligence
- Interested in working hands-on with machine learning libraries
- Need to have your own computer with Internet connection, Windows or MacOS with permissions to install tools such as WinSCP or FileZilla
 - Access to a target HPC (high-performance computing machine) will be provided.

Hours

Summer interns are expected to work a schedule with a minimum of 18 hours per week. The internship can be extended beyond the summer and is flexible.

How to Apply

Apply at this link: <https://ohsl.us/high-school-internship-recruitment-program>

In your resumé, please include relevant coursework and extracurricular activities/hobbies.