

Available Aurora Programming Models

- Aurora applications may use:

- DPC++/SYCL
- OpenMP
- Kokkos
- Raja
- OpenCL

- Experimental

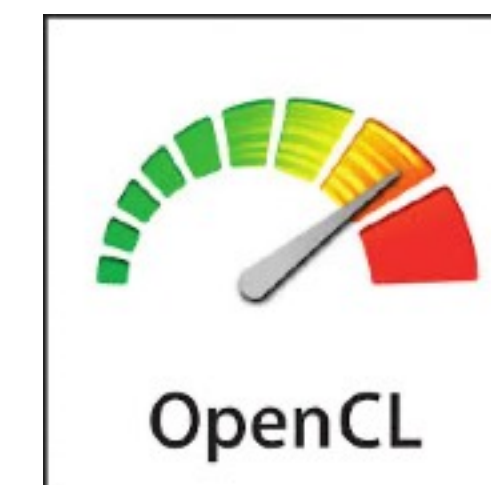
- HIP

- Not available on Aurora:

- ~~CUDA~~
- ~~OpenACC~~



HIP

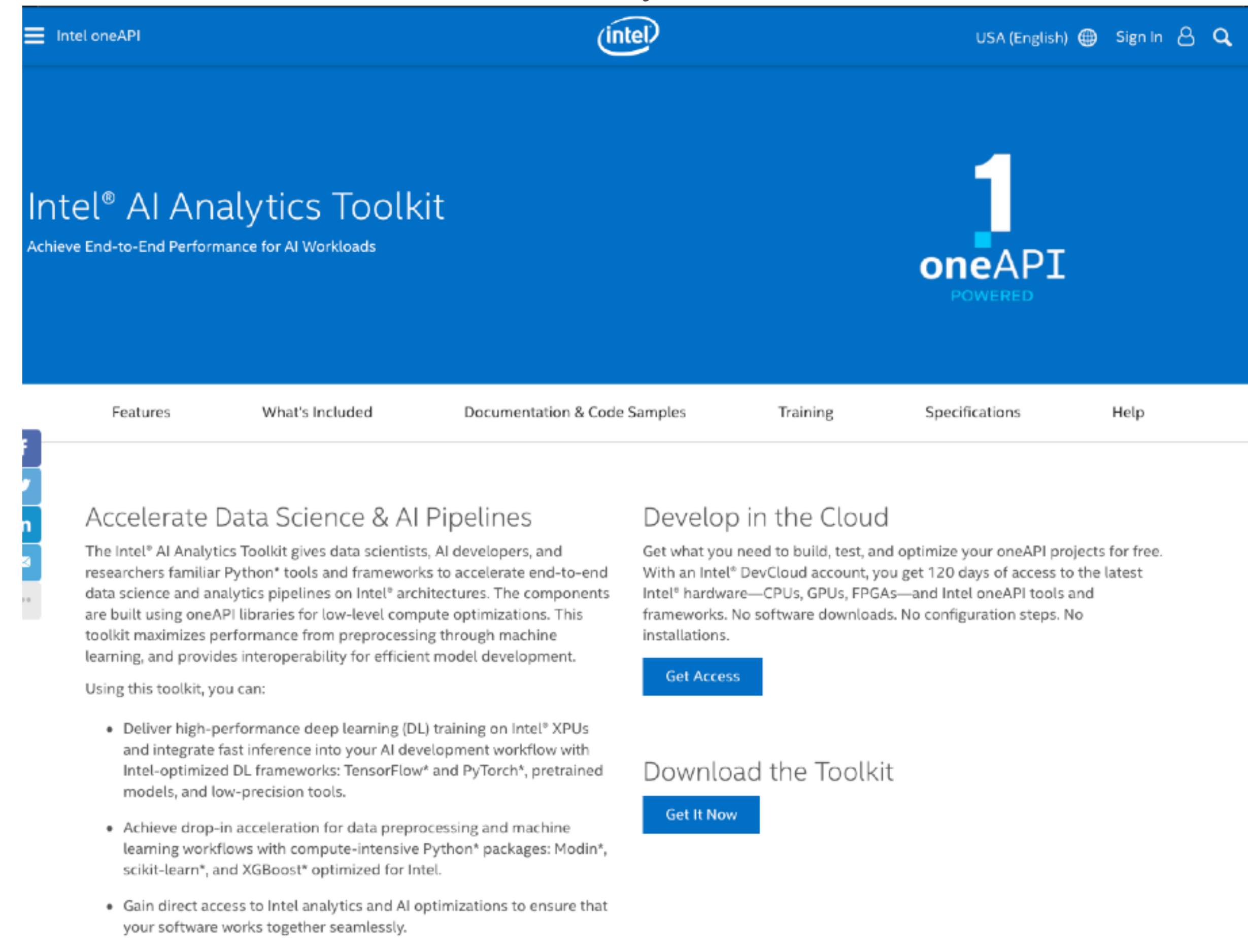


Data Science and Learning on Aurora

Aurora Will Provide for a Familiar, Productive and Performant HPC and AI Software Stack

- Python Ecosystem:
 - Numba, NumPy, etc.
- **ML + Deep Learning Frameworks:**
 - OneDAL, scikit-learn, XGBoost, etc.
 - [PyTorch](#), [TensorFlow](#),
[Horovod](#), [DDP](#), [DeepSpeed](#), 🤗
[Accelerate](#)
- *Optimized + scalable communication with OneCCL*
- Spark BigData Analytics
- DAOS for fast I/O + workflows
- Profiling and debugging tools

Intel AI Analytics Toolkit



<https://software.intel.com/content/www/us/en/develop/tools/oneapi/ai-analytics-toolkit.html>