

DiRAC SKILLS TRAINING

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Cardiff



DiRAC Training Academy

<https://dirac.ac.uk/training/>

- Comprehensive structured programme of training and support
- Academic- and industry-focused opportunities
- In-person and remote events
- Advertised via All User email and on our social media platforms
- Fosters development of skills at all levels

Foundation HPC Skills Course

- Gateway to HPC focusing on key essential skills:
 - ❖ Unix Environment
 - ❖ Command Scripts
 - ❖ Version Control
 - ❖ Software Engineering
 - ❖ Testing and Code Scaling
- All material is available self-paced on our website



Introduction to SLURM

Mastering the queuing system; Efficiently Manage Job Submission; Optimize with Module Commands; Explore a range of HPC Job Types

Introduction to MPI

First Steps in MPI; Point-to-point, Collective and Non-Blocking Communications; Porting Serial Code and Optimising MPI applications

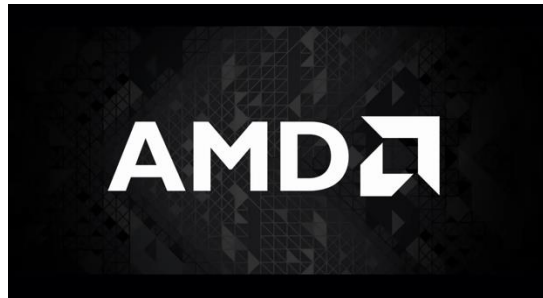
Introduction to OpenMP

Foundation of Parallelism; First Steps in OpenMP; Building Parallel Applications; Mastering Synchronization and hybrid Parallelism

Joint-Industry Training



Broad overview of different GPU pathways available



Advanced OpenMP and introduction to HIP



Hardware agnostic approach to porting code with oneAPI



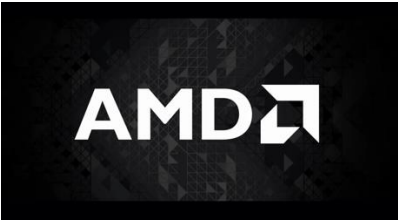
Joint-Industry Training



Unleashing the Power of AMD's MI300 Series

Discover the Potential

- ❖ Introductory Training: March 11-12th 2025; Online
- Mastering the latest GPU architecture**
- ❖ In-Person Hackathon: April 1st – 3rd 2025; London
- Registration opens January 2025*



Fundamentals of Deep Learning

- ❖ Online Workshop: Q2 2025

Advanced GPU Programming

- ❖ Online Introductory Training: Q3 2025
- ❖ In-Person 3-day Hackathon: Q3 2025



Innovation Placement Scheme



Recent Placements



**QUANTIFYING THE EFFECTIVENESS
OF MEDICINES: LINKING HEALTH
CARE OUTCOME DATA TO
MEDICINE DATA**



Guy's and St Thomas'
NHS Foundation Trust

**IMPROVING HEALTH OUTCOMES
FOR CHILDREN AND YOUNG
PEOPLE USING DATA SCIENCE
AND AI**



**ACCELERATING AI
PIPELINES TO
ACCELERATE SCIENCE**

Upcoming Placement



**Hewlett Packard
Enterprise**

**INNOVATION PLACEMENT
IN QUANTUM COMPUTING**

OPENS IN JANUARY 2025

A horizontal banner at the top of the slide featuring a vibrant, abstract cosmic or nebula-like pattern with swirling colors of orange, red, yellow, and teal.

www.dirac.ac.uk/training

DiRAC-HPC
@DiRAC_HPC

