



UNSW ResTech tools & services for AI-ML research

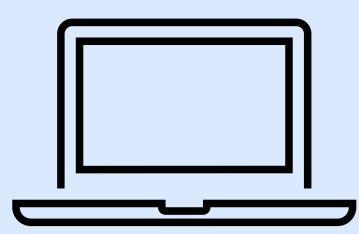
UNSW Katana - High Performance Computing



- Free for all UNSW researchers
- Located on campus at UNSW Sydney
- Over **7,000** CPU cores, **6Pb** of disk storage, **60** GPUs
- Ideal for **medium workloads** requiring more than desktops.



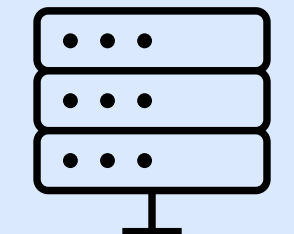
Local desktop



U-Net 500 epochs (4 cores, 16 GB RAM, Nvidia RTX 3080)
= **2 hours**

VS

UNSW Katana cluster



U-Net 500 epochs (2 cores, 16 GB RAM, Nvidia V100)
= **15 mins**

National Computing Infrastructure (NCI) - Gadi:



- Largest supercomputing facilities in Australia
- Over **260,000** CPU cores, **1200 Tb** of RAM, **692** GPUs
- Ideal for the **largest research workloads**
- Proposals and allocation organised by ResTech

AI-ML Collaboration and Support

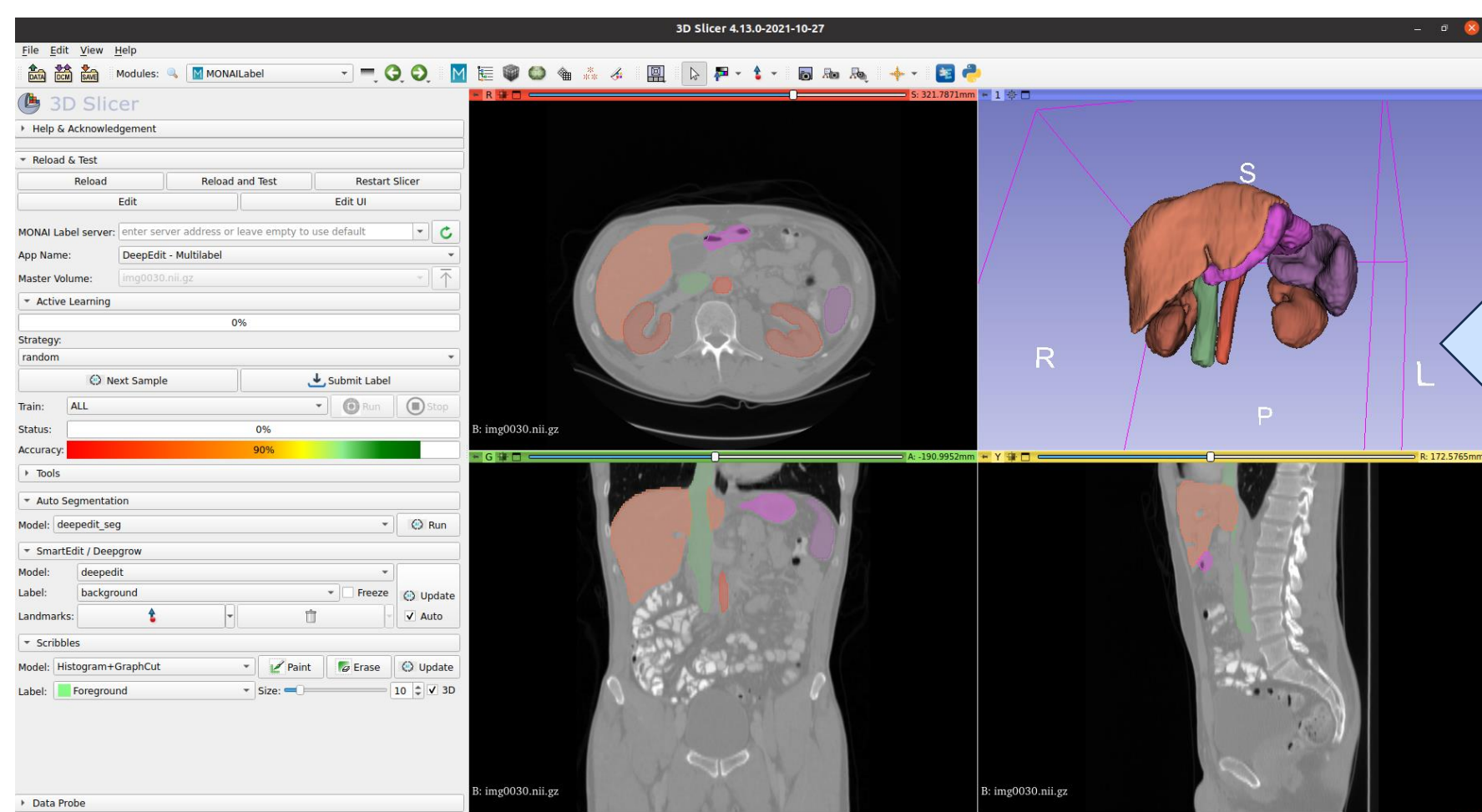


- **Collaborating** on AI Imaging projects with UNSW researchers that result in scalable university-wide solutions.
- Our specialists provide onboarding training and support for computationally intensive workloads.

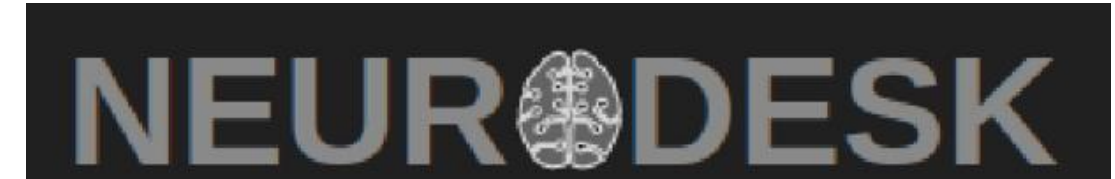
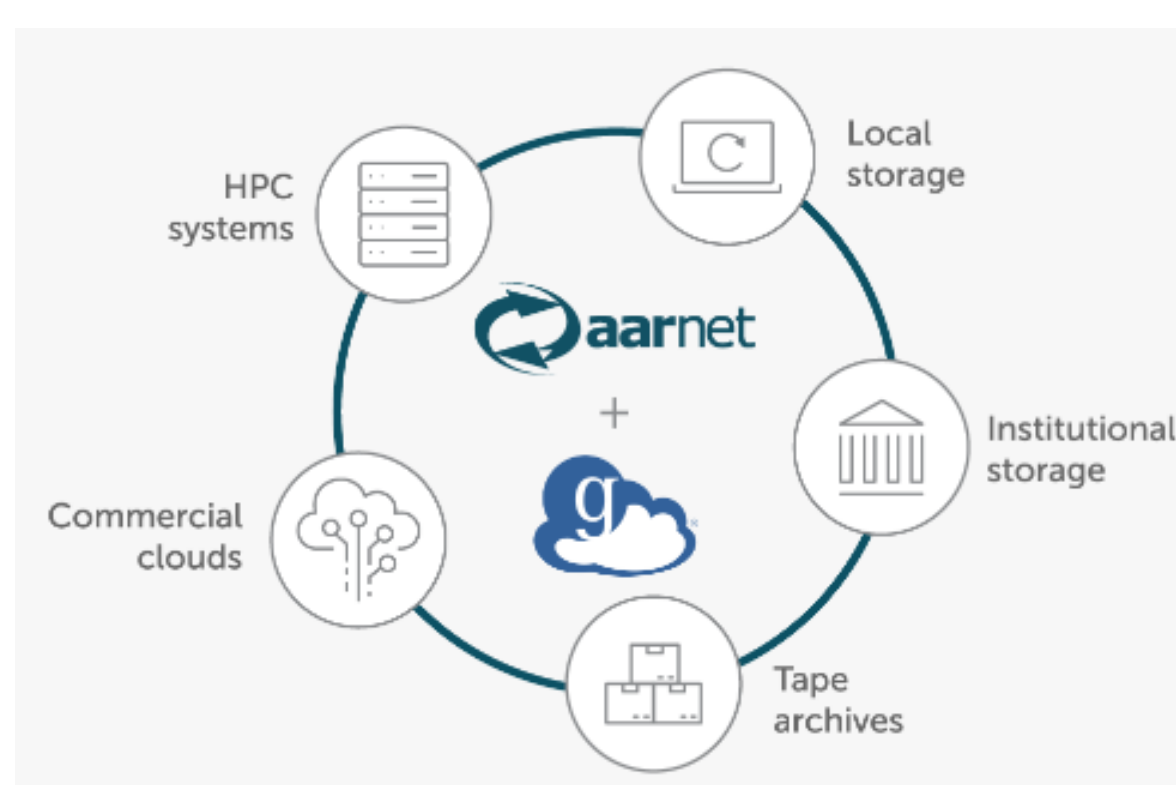
UNSW Katana Cluster AI Imaging Factory



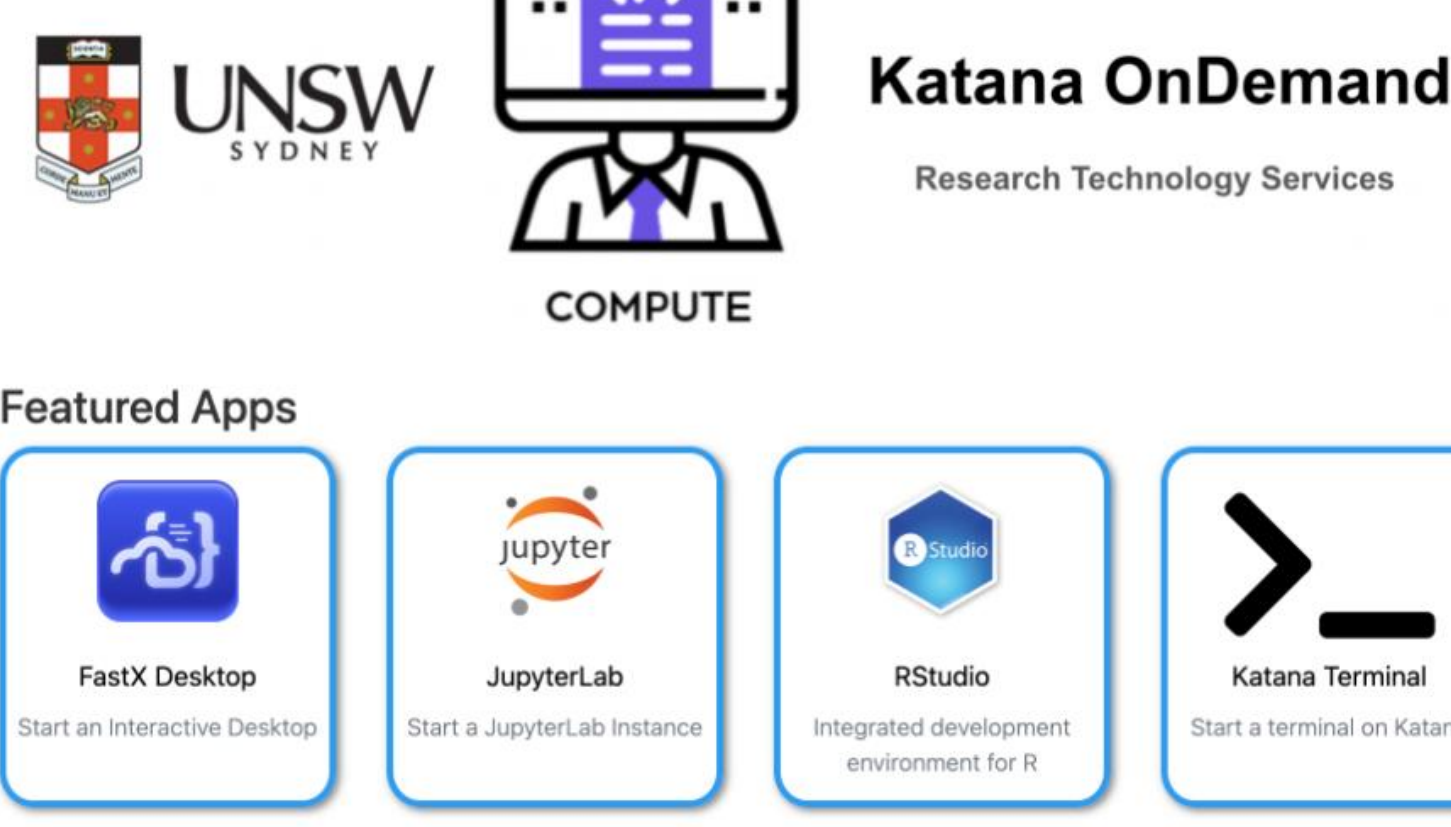
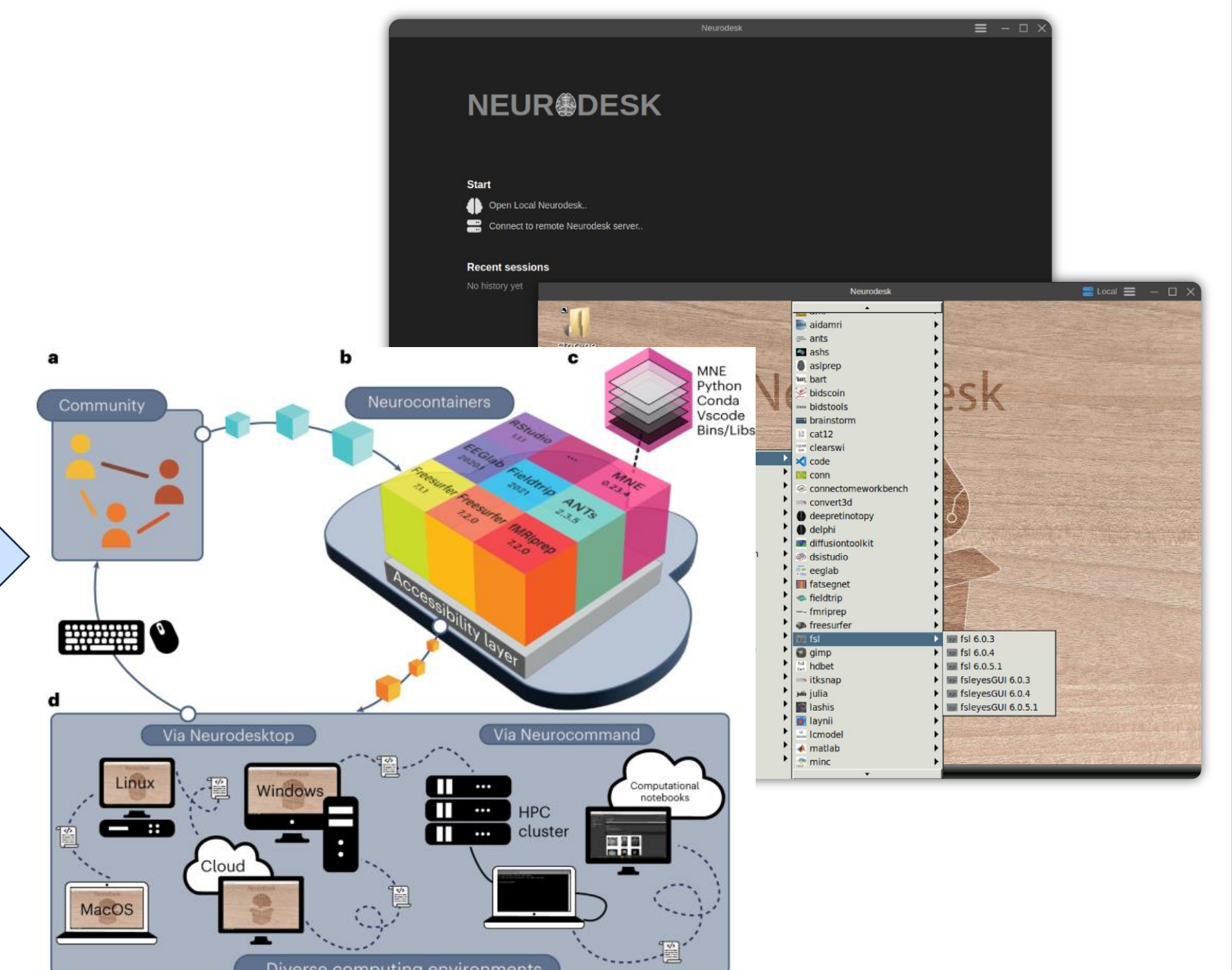
Open-source, PyTorch-based interactive framework designed for deep learning in healthcare imaging.



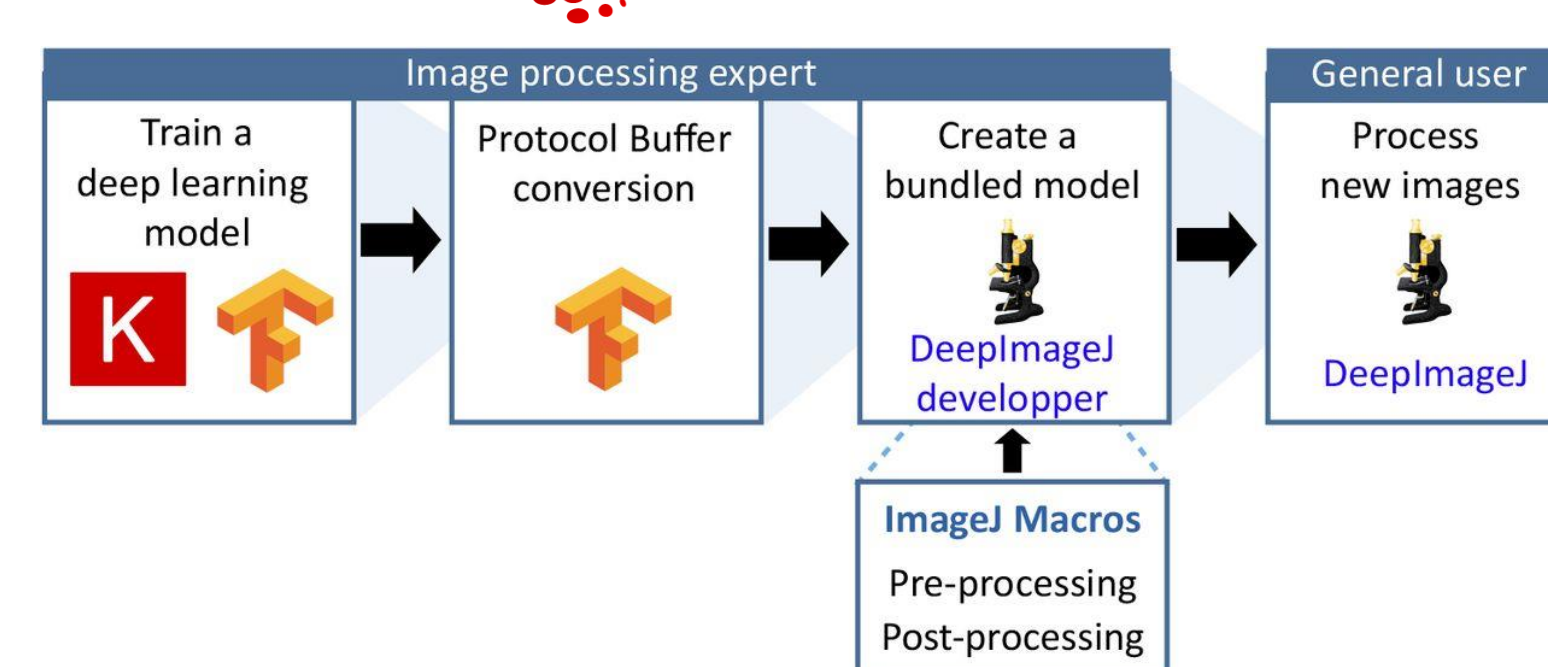
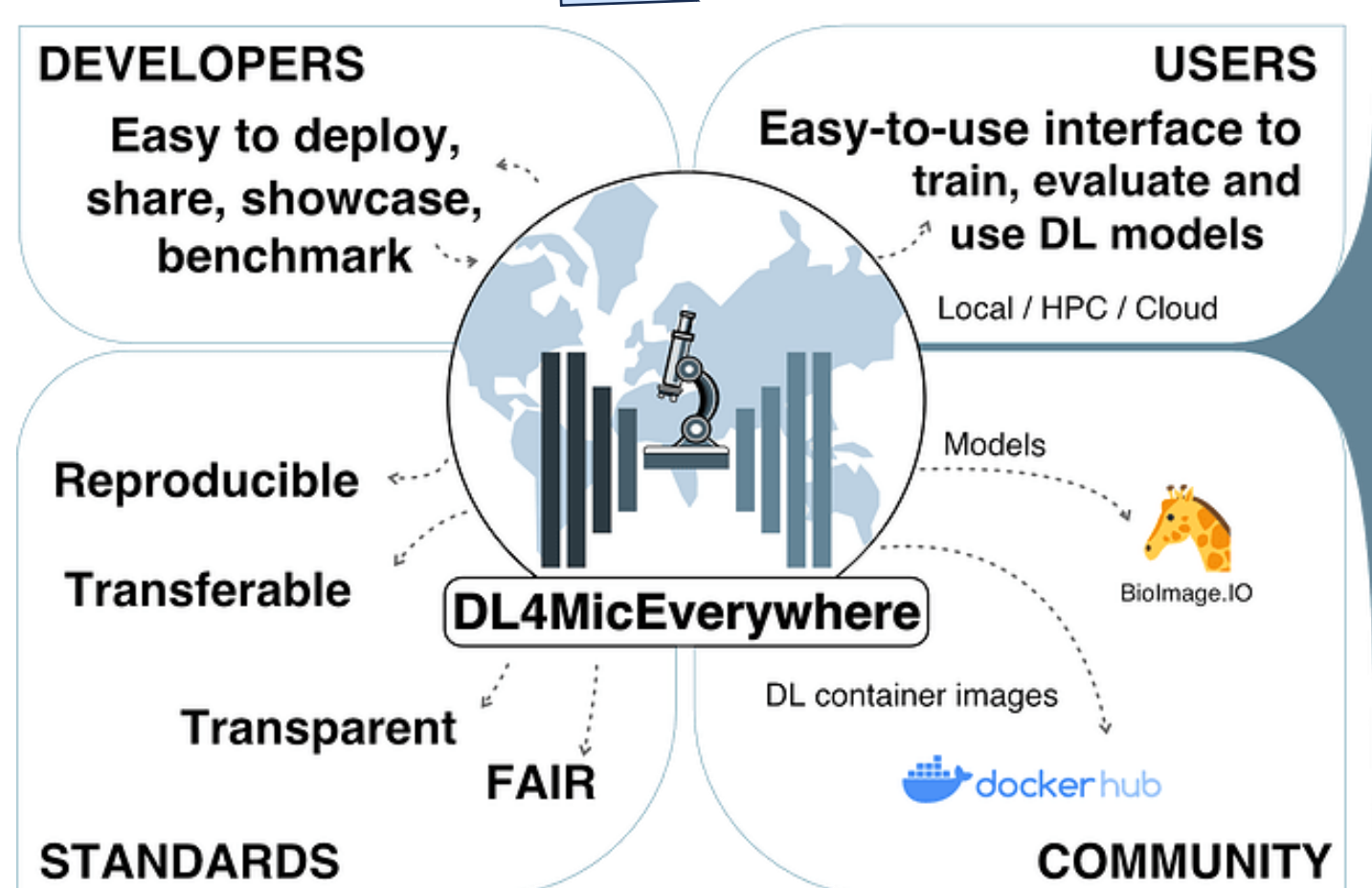
HPC data transfers for automated AI data workflows.



Flexible, scalable, and easy-to-use data analysis environment designed for reproducible neuroimaging

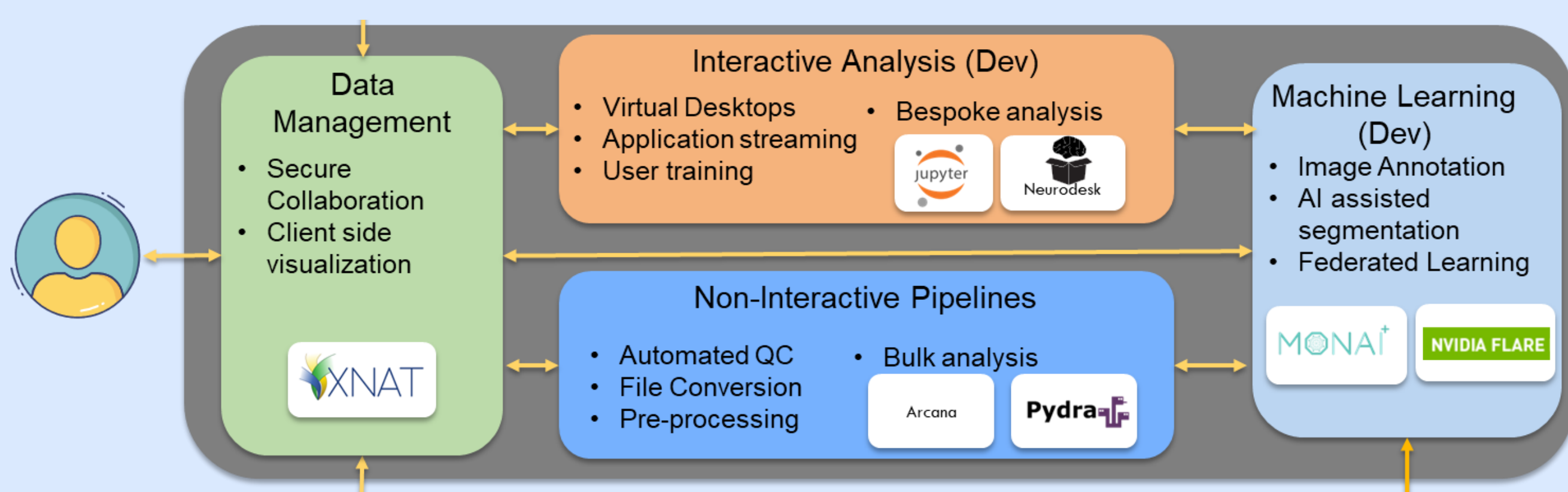


Bespoke Jupyter notebooks for AI.



Plugin for ImageJ that runs pre-trained deep learning models for bioimage analysis.

Australian Imaging Service – UNSW Node



The Australian Imaging Service (AIS) is a national platform for secure imaging (predominately clinical, preclinical, veterinary, and archaeological) management, analysis, informatics, and machine learning – co-funded by NCRIS, NIF and ARDC.

