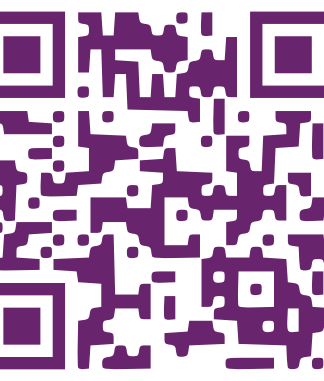




1 We Are ClusDur!



miniVite
subteam

Name: Joseph Moore
Degree: Computer Science - 3rd year
Skills: Team Leader, C++, Microarchitecture
Fun Fact: Oddly good at the game Just Dance



Name: Sebastian Wilkinson
Degree: Natural Sciences - 2nd year
Skills: C/C++, Linux, Operating Systems
Fun Fact: I don't like fun facts!



NAMD
subteam

Name: Matthew Tomlinson
Degree: Engineering - 2nd year
Skills: Python, C, Scientific Simulations
Fun Fact: I enjoy hiking



Name: Harrison Fullwood
Degree: Physics - 4th year
Skills: Python, Scientific Simulations
Fun Fact: I teach sailing as a summer job



HPL
subteam

Name: Jack Wright
Degree: Maths - 2nd year
Skills: Python, C++, Cmake, Linux
Fun Fact: I like Karaoke. I can't sing.



Name: Darius Plesan-Tohoc
Degree: Computer Science - 2nd year
Skills: Python, C++, Linux, Sysadmin
Fun Fact: I've had 20 pets in my lifetime

2 Diversity

- ➔ **Recruitment focused especially on diversity**
 - 📄 Approaching people directly at Durham's hackathon
 - 👥 Especially those who's backgrounds may be underrepresented in HPC
- ➔ **Diversity of experience**
 - 🧠 Interdisciplinary members from across the sciences
 - 🕒 Different ages and year-groups
- ➔ **Diversity of social background**
 - 👨‍👩‍👧 Both first-gen and non-first-gen students

3 Recruitment Strategy



4 Collaborative Working

- ➔ Slack for communication
- ➔ GitHub for collaboration, task tracking, knowledge sharing and version control
- ➔ Hybrid in person meetings with those unable to make it joining on Zoom

5 Training

Acquired skillset:

- ➔ Parallel programming
 - 🔗 OpenMP used in C++
 - ⚙️ Intel oneAPI DPC++
- ➔ System administration
 - 🔧 Ansible
- ➔ HPC tools
 - 📋 SLURM
 - 🌐 Environment modules

Methodology:

- ➔ Attending IndySCC webinars
- ➔ Advisor-led courses
 - 📖 Using DiRAC's teaching materials
- ➔ Use of compute clusters
 - 🏢 Hamilton 8, Intel DevCloud, departmental NCC

6 Our IndySCC Strategy

- ➔ **Specialised Subgroups** for each task
 - 👥 Teams of two responsible for each challenge based on personal interests
 - 💡 Subgroups share knowledge with the rest of the team
- ➔ **Intra-team mini challenges** on our local cluster
 - 🔗 Replicating real challenges (such as HPL) for targeted training
- ➔ **Test runs on a smaller scale** to use our compute budget efficiently
- ➔ Using **Chameleon-supported OS images**
 - 🔧 Facilitates fixing unexpected issues in the competition
- ➔ Using **SLURM** for job scheduling

7 Our Strengths

- ➔ **Diverse** personal strengths and backgrounds
- ➔ Strong emphasis on **group learning and collaboration**
- ➔ **Bespoke learning program** with targeted content
- ➔ **Planned and strategised** approach to competition
- ➔ **Supporters** in both academia and industry

8 Our Supporters



- ➔ Alces Flight
- ➔ N8 CIR - Northern 8 Centre of Excellence in Compuationally Intensive Research
- ➔ OCF
- ➔ Intel® Student Ambassador Program
- ➔ Durham University ARC - Advanced Research Computing
- ➔ DiRAC@Durham - Distributed Research utilizing Advanced Computing
- ➔ Durham University