Wu, You

Team Member of 'RACKlette' High-Performance Computing Team

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Education

ETH Zürich   Zürich, Switzerland
MSc in Computational Science and Engineering, Department of Mathematics   09/2024 - Present

ETH Zürich   Zürich, Switzerland
BSc in Computational Science and Engineering, Department of Mathematics   09/2020 - 09/2024

Research Experience

Research Assistant   Zürich, Switzerland
GPU4GEO PASC Project, ETH Zürich   06/2024 - Present

- Task-based parallelism on CPU/GPU for finite difference computations on staggered grids
- Supervised by Prof. Paul J. Tackley, Dr. Ludovic Räss, Dr. Ivan Utkin

Undergraduate Research Assistant   Knoxville, TN, United States
Innovative Computing Laboratory, Department EECS, University of Tennessee   09/2023 - 11/2023

- Language interoperability for the high-performance sparse linear algebra library - Ginkgo
- Presented at session "MS6E - Julia for HPC: Tools and Applications - Part II" at PASC24 🔗
- Supervised by Prof. Hartwig Anzt, Dr. Valentin Chuvary, Tobias Ribizel

Bachelor Thesis   Zürich, Switzerland
Geophysical Fluid Dynamics group, Institute of Geophysics, ETH Zürich   02/2023 - 07/2023

- Title: Towards Hydro-Mechanical Earthquake Cycles with a GPU-based Accelerated Pseudo-Transient Solver
- Presented poster at EGU 2023 🔗
- Supervised by Prof. Taras V. Gerya, Prof. Luca Dal Zilio, Dr. Albert de Monserrat Navarro

Teaching Experience

Solving Partial Differential Equations in Parallel on GPUs 🔗   Zürich, Switzerland
Teaching assistant for the course 101-0250-00L at ETH Zürich   09/2024 - Present

[Tutorial] Scientific Visualization for Student Cluster Competitions   Zürich, Switzerland
Introductory tutorial workshop for new members of the student cluster competition team 'RACKlette'.   02/03/2023

Scholarship and Awards

JuliaCon 2024 DEI Scholarship   Eindhoven, Netherlands
Awarded a scholarship of up to $750 for attending JuliaCon 2024 in Eindhoven.   07/2024

AWStudents Mentorship Program   Zürich, Switzerland
Mentored by AWS to explore tech careers and deepen cloud expertise through trainings and labs.   02/2024 - 08/2024

SC22 Student Cluster Competition - "RACKlette" Team 🔗   Dallas, TX, United States
Achieved top results for the HPC software package 'PHASTA', used for CFD simulations.   11/2022

National Linguistics Olympiad (DOL)   Berlin, Germany
6th. Place | Leibniz Center for General Linguistics (ZAS).   06/2020

Karin-Elisabeth Loos Sponsorship Award   Wiesbaden, Germany
One of five top high school graduates in Wiesbaden awarded €1,000 for excellence in natural sciences.   06/2020

Skills

Programming   C++, C, Julia, Python, MATLAB, MPI, CUDA, ROS

Languages   Mandarin (Native), German (C2), English (C1), Spanish (B1/B2), Swedish (A2)