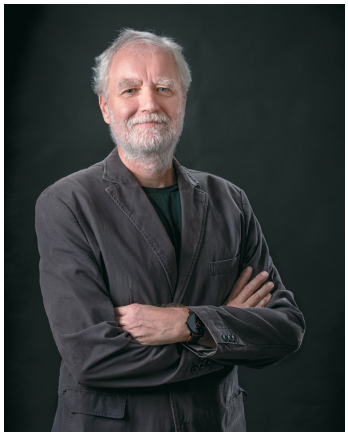
Collaborative Champion: Hartmut Kaiser

News

Press Releases
Event Announcements
CCT Weekly
Grants and Funding
Student News
Archived News

LSU Office of Research & Economic Development



Hartmut Kaiser, IT consultant at the LSU Center for Computation & Technology and adjunct professor in the Department of Computer Science, grew up in East Germany on the other side of the Berlin Wall, where he learned that guarding what you have can lead to losing everything. Once the Wall came down, Kaiser spent more than 15 years developing software for international companies learning new methods of working and collaborating. Now, as the leader of the LSU STE||AR Group, or Systems Technology, Emergent Parallelism, and Algorithm Research, which advances high-performance computing to better suit today's hardware architecture, Kaiser sees the group's ideas popping up around the globe, and its work is becoming more successful than ever. How? By sharing, and seemingly giving everything away.

What's the overall method for open-sourcing your work and sharing it as a research strategy?

We've never thought about how to formally describe it. It's more intuitive. But the general underlying idea of what we do is to share the results of our work as open-source projects, with the hope that other people pick that up and change things based on their own ideas and requirements and then contribute back. It makes the whole project more interesting for more people.

What, in your mind, is the main reason young people want to come to LSU to work with your group?

The centerpiece, at the end, is developing ideas of how we can improve computing. The coding work is really just experimenting and supporting how we solve problems. That's interesting and important because this allows the students to identify themselves with the ideas and not with the code. Even if they go somewhere else, they probably won't be able to use the code or the libraries of code they've been working on, but they carry the ideas with them, and that's the important part.

How do you teach open-sourcing and collaboration?

Young people tend to like when they create something and other people start using it. Some people are very money-focused and only do things when you pay them, but some people are quite altruistic and try to contribute even though they don't immediately get a reward.

Can you tell me more about the work you're doing, and what's contributed to its success?

We're on the cutting edge of using parallelization using C++, yet the stuff we're doing is well-known to everybody because we're using C++ and anyone can read it, but it's the way we're using things that's different. The alignment of the standardization work we're doing with our open-source and research projects was actually the key to community acknowledgment, and that was completely emergent.

Are you sure you're not in communications?

Ha! Openness just allows people to look at what we're doing, that it's not just words. They can look at the quality of the work, which is portable across many platforms, and we put a lot of effort into the quality of implementation. Openness has never hurt us in any way—never. The opposite is true. If you write a proposal and you write about your library and it's open-source and everyone can look at it, the program officers or reviewers are much more inclined to fund you because it's real, and there's already a community around it.

Are you never afraid that someone will come along and make a lot of money off of the work you're giving away for free?

Many people try to do what we've done. We see our ideas popping up everywhere, which is great. In the end, someone will come up with something really cool, and we'll then reintegrate that into our work. We don't have to be afraid.

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