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Hard wired

Argonne computer scientist Michael Papka has programming code running through his veins

When Monday morning rolls around, most people have to drag themselves out of bed for work, but not Michael Papka, MS '94 ENG. The computer science wiz can't wait to get to his job at Argonne National Laboratory.

"I constantly have the opportunity to learn new things—it's pretty exciting," he says. "So many people say, 'I don't like my job; I don't want to go to work,' but I actually look forward to it."

“I like my job.
I'm very lucky.”



Lloyd DeGrane

As deputy associate laboratory director for computing, environment and life sciences at Argonne National Laboratory, Michael Papka is using his computer skills to help scientists advance research in such areas as battery storage, multi-cast audio and video technology, solar energy and alternative fuels.

Papka serves as deputy associate laboratory director for computing, environment and life sciences at Argonne, as well as co-director of the Futures Laboratory in the Mathematics and Computer Science Division. In addition, he serves as a senior fellow at the Argonne National Laboratory/University of Chicago Computation Institute and leads the visualization efforts for the university's Flash Center. The center specializes in conducting some of the world's most advanced computer simulations of phenomena such as exploding white dwarf stars, which help scientists understand the nature of dark energy.

Papka's skills with high-powered computing systems also serve him well in his role as working group chair for visualization with TeraGrid, an NSF-funded project that combines computing resources at 11 partner sites to create what is essen-

tially one big supercomputer.

His passion for computers began early. "I grew up across the street from a community college that had some of the early Commodore computers and anyone could use them," he recalls. "I was in middle school, playing games and learning BASIC programming language. Then in my senior year in high school, I was lucky enough to get an Apple Macintosh when those came out, and I've kind of been hooked on computers ever since."

Even as an undergrad studying physics, Papka says that although he loved science, it was the combination of science and computing that really fascinated him and brought him to UIC for his graduate studies. Today, he has the opportunity to work with some of the biggest computing systems in the world, helping scientists advance research in such areas as battery storage, multi-cast

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One of the best parts of his job, he says, is seeing technologies that his work helped develop, such as video chat programs, become such a part of daily life that even his parents use them.

"[Our work] influenced all of those programs and the understanding of how to connect people together," he shares. "We're not making products that enter the marketplace, but we're helping advance what other people are doing."

Although he loves his work at Argonne lab, Papka wants to teach more in the future, so that he can help the next generation take computing into the ever-accelerating future.

"I'd like to spend some time working with undergrads, talking about high-end computing infrastructure and injecting that [subject] into the computer science curriculum much earlier in the process than happens now," he explains. "It usually happens in grad school—or people learn it on their own—but for students that enter other areas of science, such as physics and chemistry, it's the perfect time to introduce it to them as part of their undergrad process."

But for now, Papka is happy to revel in doing what he loves.

"I have the best of both worlds—I get exposed to tons of new things and I get to apply my background in computing and help [my colleagues] accelerate what they're doing," he says. "You sit around with your friends on a Friday night and they're like, 'Ah, this week was so hard; I'm so tired of my job.' I sit there, and smile and think, 'I like my job.' I'm very lucky."

—Sara Langen