

## About\_Me

My name is Dave McGuire. I'm a tech guy based in Port Charlotte, FL. The pics above were taken several years ago when I lived in the Washington, DC area. I look pretty much the same now, but I'm now sporting a goatee , I've traded in my glasses for contact lenses, and my hair is a bit shorter...but still not "short".

If you're reading this, it's likely that you're looking for more information about me. Only you know why. ;) I was born in Trenton, NJ in 1969. I am an only child, hence I am spoiled rotten and am used to getting my way, but I usually try to behave myself.

I'm a tech guy, I do embedded systems hardware and software development, as well as various other types of computer programming and network design. In case you're not a geek, the term "embedded systems" refers to purpose-built computer circuitry that exists as a component within something else...examples would be the guts of your iPod or microwave oven, on up to something like the circuitry and programming that forms the guidance system of a cruise missile or a spacecraft. If you have a portable MP3 player or a cellular phone, these devices contain microprocessors and software (called "firmware") that together comprise an embedded system. That's the sort of stuff I design and build.

I work mainly in my home lab. This is both my hobby and my profession, and has been for as long as I can remember. If you're curious, you can see what I've been working on, as well as the facilities and equipment that I use in the course of that work, in the menu choices on the left side of this page.

Pride and egotism are separated by a very fine line...Sometimes I trample all over it, but I usually try to behave myself.

## Career Stuff

If you're looking for my resume, it can be found in PDF format [here](#). To display a PDF file on pretty much any platform, you need Acrobat Reader from Adobe...this is free and can be downloaded from Adobe's web server. No, I don't maintain it as a Word document. Use standard file formats.

I am currently a software and hardware developer for a small but brilliant company called Neuron Dynamics. We use supercomputers and artificial intelligence software to do interesting things in the medical field. I work remotely from my facility in Port Charlotte, Florida, traveling to North Carolina and Wisconsin as needed to work with other members of the company.

From January 2001 until the end of 2003, I was head of engineering for QYX Learning, Inc., a Tampa, FL based company that develops education automation equipment for the K-12 classroom market. My project was called QYXie, which is basically a small, rugged, wireless data terminal for student use in classrooms. It helps with assessment testing, statistics, grading, and other related things. I designed and built the hardware and wrote the firmware, and I managed the team of programmers who wrote the application software that turns it into a complete system. It's neat, and I'm very proud of it. QYX got its first round of funding in December of 2002, and QYXie went into limited volume production in February of 2003. It later succumbed to incompetent management, but honestly, everyone saw that coming.

For a long while, I was a software developer (and a founder) at SkyCache, Inc., in Laurel, Maryland. That's a long, nasty, emotionally charged story with at least two sides. A year after that company imploded due to gross mismanagement, I moved to St. Petersburg, Florida. Great weather, no bullets whizzing overhead, sane cost of

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living, beach...nice. The polar opposite of the DC metro area in nearly every way. I just can't figure out why anyone continues to live there when there are places like this.

So, how did I wind up in the DC area for so long before moving here? I moved there on January 1, 1993, upon acceptance of an offer of employment at Digex, Inc., by its rather cool co-founder and former president, Doug Humphrey. I became full-time employee number three there, and poured blood, sweat, and tears into that company for about five years. Well, four of them. The last year was spent being angry and burnt-out as I watched the sleaziest suits in history ruin my company. I won't mention any names, but their initials are Chris McCleary, Earl Galleher, Brian Deobald, Nick Magliato, and a few other complete morons. My friends and I worked very, very hard to build that company...it peaked as one of the largest commercial Internet service providers in the country, and it was destroyed by suits who strip-mined it for short-term personal financial gain. But I'm not bitter.

Doug and most of the rest of the early Digex employees left what remained of the company some time ago. Doug started a new company, SkyCache, Inc., and brought several of us in at the beginning. We did really neat stuff. I'll try to type it up in more detail some other time, but for now, I'll just say that it's satellite-based broadcast overlay network including, but not limited to, Usenet news feeds and preloading of web caches to increase their hit rates, as well as more generic broadcast-mode bulk data transfer. I did all my SkyCache development (150,000+ lines of code) in C under NetBSD on Sun SPARCstation-5 and SPARCstation-20 computers, and under IRIX on Silicon Graphics Indigo2 and Challenge systems. Lots of heavy TCP/IP socket programming, protocol handling and on-the-fly translation, nonblocking I/O, dozens upon dozens of data streams flying in many different directions simultaneously. It was serious business.

## Personal Computing Activities

On an exciting note, in October of 1999, I realized a pipedream I've had for nearly two decades...I finally got my very own Cray supercomputer. It's a J90, which is a parallel vector supercomputer...more specifically a J98/4128. It's got four vector processors, 1GB of main memory, and a 225GB disk array. It runs an operating system called Unicos, which is a UNIX variant, and has compilers for C, C++, FORTRAN-77, and FORTRAN-90. It's running in my home computer room now and is doing very well. I hope to have some pics of it and the rest of my home computing & network facilities online soon. In the meantime, you can see a rough shot of it here. That picture was taken in the computer room in my old house in Maryland shortly after I brought the system home from its former owners, LearJet. They were using it for airframe stress simulations in the design of their new business jet.

My interest in supercomputing has continued to grow since then, as have my "connections" in that business...I now own no less than FIVE Cray supercomputers...Two YMP-EL98s, a YMP-EL94, as well as the original (and much newer) J90 mentioned above. I recently acquired a Cray SV1, but haven't gotten it set up yet. I can't help but wear an ear-to-ear grin as I type this, as this is just about the coolest thing a geek could ever experience! 8-)

I have been known to spend my time building and programming computers of various sorts. Note that I said computers, not PCs. My programming language of choice is C. I am primarily a UNIX hack, but I've been known to do some VMS stuff as well. I don't run Windows...I don't have the patience or the stomach for it. I don't use PC hardware for the very same reasons.

My processor architectures of choice, in no particular order, are:

- UltraSPARC
- AXP (Alpha)

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- Cray PVP (parallel vector processor)
- Motorola 68k
- IBM POWER/PowerPC

I also hack on VAX, PDP-11, and PDP-8 computers on occasion, but they're of primarily historical interest. Some of those computers are 40 years old...very, very different from the stuff we're using now. I find maintaining them, studying them, and using them (though rarely for "real work") to be therapeutic and enjoyable. That might sound weird, but it's true.

I am a bit of a packrat and I go to hamfests regularly. Needless to say, those two things together can be very dangerous...but the last time I experienced boredom was when I was about six years old, so I must be doing something right.

Most of my systems are beefy Sun UltraSPARC enterprise-class servers running Solaris, which is a UNIX variant. Solaris is rock solid, fast, predictable, and generally cool. My systems have run times between reboots measured in years...I won't settle for less.

No Microsoft "software" is allowed to enter my home. I believe in proper engineering, using the right tool for the job, and quality software...therefore, I do not use Microsoft products, especially on networks. Compatibility is the right thing. Interoperability is cool. Standards-based engineering is good engineering. Microsoft is irrelevant. Just because it's in widespread use doesn't mean it's good...I make my own informed decisions about what operating systems I run on my computers, and so should you.