Michael Sinz

12931 318th Ave NE
Duvall, WA 98019

Michael.Sinz@Sinz.org
http://www.sinz.org/
425-405-5230 [cell]

Job Target: Systems Architect / Advanced Research and Development

I greatly enjoy designing and building solutions to both new and old problems with unique solution constraints. I like and am capable of working with a wide variety of technologies.

Overall Skills:

I have been in the high technology and software industry for over 20 years. I have been a project manager and technical lead for both small and large engineering projects. I worked on core operating system software for a number of operating systems, including some that I designed. I worked with chip manufacturing and wafer scale integration systems. I built hardware (robotic arms) and software to run wafer testing equipment. I started a number of successful engineering organizations, including some that had many off-site (virtual office) employees. I have written significant amounts of code in many different languages and different CPU architectures. I have done systems analysis (hardware and software) and designed modifications to address issues in security, performance, and reliability. I am (mostly) fluent in German.

Employment History:

January 2009 to present — **Microsoft, Redmond, WA**

Principal Architect - 緑 - Technical Strategy Incubation

Working on a rather interesting project that I can not talk about.

October 2005 to January 2009 — **Andesa Services, Allentown, PA**

Chief Troublemaker - R&D Manager

Andesa Services is a life and annuity policy administration solutions company that processes very large amounts of business critical data on a daily basis. I designed and implemented a clustered computing solution that provided the scalability needed for the company to grow its business and help control costs within the data center. Also helped define a better development life cycle along with implementing the tools to help bring the company to the next level in productivity and reliability. Helped define and move more of the infrastructure to a more secure process model as required by the changes in the business. Defined and designed the next generation management console for our data processing systems, bringing higher usability, better visibility, and stricter auditability. Helped mentor and grow the technology teams.

January 2004 to March 2005 — **Fiberlink Communications, Blue Bell, PA**

Chief Troublemaker - Backoffice/Web Systems

Fiberlink provides managed, secure corporate remote access solutions. Restructured the application interfaces to improve security, management, and reliability. Added reseller support. Architected and implemented a site wide web security system that provides a brandable, single sign-on solution across a wide range of different backoffice services. Architected an advanced, high-capacity client policy and data update servicing system that performs over 100 times better than the previous system and is able to be distributed to multiple co-location facilities for higher availability and scalability. Advanced the development environment by incorporating a modern revision control system and built our own Linux workstation distribution based on the RedHat Enterprise Linux run in production such that the development environment would more closely match production - this included building automatic network install and update services for the workstations.

February 2000 to July 2003 — **WorldGate Communications, Inc., Trevose, PA**

Director, Systems Engineering / Principal Engineer

WorldGate built Interactive TV solutions using ultra-thin clients (basic digital cable boxes with minimal CPU power) and a cluster of servers providing the interactivity encoded into real-time MPEG streams. Joined WorldGate to work on the head-end systems, to design a method to scale them from the relatively small usage of the trial systems to the potential full roll-out to AT&T (now Comcast) cable systems. This included dynamic provisioning to allow for addition or replacement of hardware. Designed and developed a patented system for recombining control streams in Motorola based digital headends so as to allow the WorldGate and Gateway services to operate within a HITS (headend-in-the-sky) based setup. Leading the project to move to Linux when the company ran into financial difficulties and all ITV projects were stopped. Built the large diskless Linux cluster (over 120 nodes when we ran out of equipment space) with our own kernel and network boot process into an internal Linux distribution that would install the latest version of our system over the network to the cluster manager.

December 1997 to January 2000 — **NextBus Inc., Emeryville, CA**

Co-founder / Director of Research and Development

One of the founding partners in a startup company that deals with transit systems to provide information to passengers, mainly real-time prediction of bus arrival times. Responsible for the architecture and implementation of the backend, server, and web-based parts of the system. Designed the core structure such that it was reliable, fail-over capable, and scalable to very large transit systems. All development done remotely over the internet to co-located servers and equipment on the buses. Chief architect for the bus location and prediction system and implemented the first prototype in order to prove that the concept was possible. This included the internet/web and wireless distribution of the predictions in addition to the data collection and prediction generation technology. The core code was written in Java which provided for cross-platform failover capabilities.

June 1993 **SCALA Inc., Exton, PA**
to December 1997 Director of Research and Development

Scala is a company that produces multi-media software solutions. Joined the company as it was re-inventing itself as a US-based technology company. Responsible for building the research and development department, including budgets, finding office space, and hiring engineers. Designed the MMOS (Multi-Media Operating System) that is at the heart of all of the Scala technology. Won a contract with General Instrument for putting our Scala technology at the heart of their Digicipher-II satellite boxes that were to be used by Primestar. This contract made it possible to grow the Scala engineering department quickly enough to capitalize on the decline of Commodore-Amiga, where I was a friend of many great engineers, most of whom joined me at Scala. Most proud of the engineering culture I helped create at Scala, with a strong focus on quality and taking the up-front engineering time to help provide significant quality and development efficiencies later.

May 1989 **Commodore-Amiga, Inc., West Chester, PA**
to June 1993 Senior Systems Engineering Specialist / OS Development Group

The Amiga was the first multi-media desktop computer with many features that have only recently made it into the more main-stream platforms. Was in charge of a large part of the Amiga OS, including the core kernel, hardware auto-configuration, audio control, layers (windowing), and Workbench (the graphical file/program manager). Responsible for advanced CPU support and feedback to Motorola. Designed a kernel-based debugger system that was able to operate well enough that we eliminated the need for hardware based debugging systems. Rearchitected the Layers system to provide over 700% performance improvements in its operations plus significant enhancements for rendering to the Layers, reduced memory foot-print, and a reduction in the number of iterations needed for each additional layer. (from O(n^2) to O(log n) Involved in helping debug and optimized the code generated by the Amiga SAS/C compiler.

June 1984 **Mosaic Systems, Inc., Troy, MI**
to May 1989 Software Engineer and Systems Architect

Mosaic Systems was a bleeding-edge high-tech startup that worked in the wafer-scale integration field. Helped design and implement the software infrastructure for testing, tracking, and programming the wafers. This included robotic control of complex test fixtures requiring very exact movement to the numerous contact points.

1979 **Part-time consultant**
to 1983 Software Engineer and Architect

Built various types of systems, from Medical Billing software to Country Club Members Database system to a multi-user PDP-11 system with a custom OS and security system for my high school to a high-performance AutoCAD display driver for a custom high-resolution NCR display card.

Education:

BA in Mathematics with Academic Honors, secondary in Physics from Carthage Collage. Full tuition scholarship to Carthage Collage stemming from my AI research project presented at the Mid-West Regional Science Fair.

Other:

Recently, I have written code for Linux, PalmOS, MacOS-X, FreeBSD, Windows, and custom embedded systems. The projects range from low-level, real-time data translation software to high-level, database-driven web sites. Tools used include Perl, Java/J2EE, C/C++, SQL, Assembly, PHP, Python, and general Unix/Linux toolsets. *(sh, awk, make, etc.)*

Designer and implementor of the Insurrection web interface to the Subversion revision control system. Built Code-Host.net reliable document revision control hosting service based on my Insurrection code. Designer and implementor of WordWiggle.com, a web-based educational game that some find rather addictive. Author of some publicly available PalmOS applications including an adaptation of WordWiggle (see http://www.sinz.org/Palm/). A core member of the Blackdown Java-Linux porting group. Author of some popular (at the time) publicly available Amiga software. Designer of multiple successful commercial software products. Design and implementation of an advanced font system for the *Final Copy* and *Final Writer* word processors on the Amiga.

Founder and Editor-n-Chief of Centrique, a literary-arts magazine at Carthage College. This included providing initial proposals and budgets, obtaining funding, and setting up and growing the organization.