Michael Richard Brown

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References available upon request.

Objective

Use my knowledge, creativity, and experience to make contributions in computing through research, teaching, and implementation of new concepts in software architecture and human interfaces.

Skills and Values

- **Enjoys Learning and Teaching**
- **Excels at Problem Solving and System Integration**
- **Strives for Excellence in Every Endeavor**
- **Designs and Implements Comprehensive Solutions**

Awards

- **NASA Space Flight Awareness Honoree Award 2013**
- **Honeywell Bravo Award Recipient (Three Times) 2007, 2008, 2010**
- **Computer Sciences Corporation NPS President's Award 2012**
- **Exelis Certificate of Appreciation 2013**

Experience

Programming Languages: C/C++, C#, Java, Python, SQL, HLSL, Cg, GLSL (geometry, vertex, fragment, and compute shaders), x86 assembly, Visual Basic, Qt, Ada, Bash, Delphi, COBOL, Fortran, G-code, Lisp, ML, Pascal, Prolog, Perl, PHP, Ruby, JavaScript, HTML5, CSS, XML, JSON, plus many macro, scripting, batch, and formatting languages. Able to learn any language quickly.

Platforms: Windows versions 2.11 through 10, Linux kernel versions 2.4 through 5.4, FreeBSD, Android, Arduino, GTK, Google Cloud Services, Kubernetes, Docker, ASP.NET

Databases: Building, analyzing, migrating, replicating, and optimizing relational databases, including SQL links, keys, triggers, and queries. Managing and using SQL Server, Oracle, Access, MySQL, MongoDB, DB2, ORM, and many other relational and object-oriented databases.

Networks: Data transmission methods, layers, and protocols: IP addressing and routing, TCP, UDP, BGP, NAT/PAT, IPSec, PPTP, L2TP, DNS, DHCP, PXE, SLIP, PPP, PPPoE, FTP, Telnet, HTTP(S), SOAP, POP3, IMAP, SMTP, RTSP, VoIP, Ethernet, ISDN, DSL, DOCSIS, T1, RS-422, RS-485, MIL-STD-1553, and 802.11.

3D Modeling and Printing: SolidWorks, Blender, Unity 3D engine, FDM slicing and printing.

Education

Bachelor of Science, Computer Science *- New Mexico State University, Las Cruces*

Employment History Highlights

Senior Software Engineer, NASA White Sands Complex
Honeywell TSI, NASA NENS Contract
Computer Sciences Corporation, NASA SCNS Contract
TDRSS (Tracking and Data Relay Satellite System)
May 2007 to September 2014

- Designed and implemented software build and delivery systems with automated disaster recovery to improve operational availability.
- Created virtual machine images of operational systems to improve discrepancy investigation, provide an environment for software development and unit testing, and simplify system simulation.
- Investigated and implemented fixes for project internal discrepancies during system integration testing and operational transition.
- Managed and assisted software teams on software deliveries to operational system.
- Trained new engineers on software maintenance process and procedures.
- Provided design analysis, peer review, and training for software and system engineering teams.

Director of Information Systems
BOSS International, Madison, WI (acquired by Autodesk, Inc.)
October 1995 to June 2000

- Interviewed, hired, supervised, and trained network technicians.
- Centralized files and databases for better security and disaster recovery.
- Migrated network to dynamically configured and routed IP, connected LAN to the Internet using a firewall, and established a VPN for remote access.
- Managed development of company website.
- Managed implementation of domain trust security model and roaming profiles.
- Implemented automated installations to reduce cost of workstation deployments.

Lead Software Engineer, CRM and Database Development
BOSS International, Madison, WI
September 1994 to June 1995

- Designed relational database to normalize existing flat-file customer database.
- Designed and managed implementations of intuitive graphical user interfaces based on business procedures.
- Managed conversion from legacy database to new relational model.
- Optimized database performance using indexes, triggers, and denormalized caches.
- Instructed developers on proper SQL query, relation, and transaction methods.
- Provided technical information and documentation to Human Resources.
- Managed testing and debugging of all related interfaces and utilities.

Software Engineer, KYPIPE2 Development
BOSS International, Madison, WI
December 1993 to May 1994

- Designed relational database for a pipe flow modeling and simulation program.
- Collaborated to reach consensus with other developers and engineers on the design of a graphical interface to the database.
- Implemented intuitive graphical user interface.