

# KARL W. KOWALLIS

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## OBJECTIVE

I am seeking permanent or contract to permanent employment in the Northern Virginia Area. I have experience as a software tester, including computer language knowledge, coupled with a rigorous scientific background. I enjoy working with networks of mixed Operating System and security environments and I want to help a company expand into new technologies while fully leveraging existing ones.

## EXPERIENCE

**ADVANCED PROGRAM MANAGER**  
*MicroStrategy, Inc.*

JANUARY 2001 TO APRIL 2001  
*Vienna, Virginia*

Advanced Product Support is a second tier of technical support at MicroStrategy. Case escalations from the initial support team are passed to Advanced Program Managers with in-depth knowledge of specific products. I worked with our Server Products, including our open API and SDK, and gained further understanding of firewalls since web access to our servers was often across a corporate firewall. I programmed some custom applications using Visual Basic and perused code in C++ needed to access functionality available through the API but not exposed in the existing graphical interfaces. I set up testing environments and provided training workshops to other support personnel on how to use and troubleshoot our server products. Many problems involved SQL generation and ODBC connectivity issues.

**BETA CONSULTANT**  
*MicroStrategy, Inc.*

MARCH 2000 TO JANUARY 2001  
*Vienna, Virginia*

MicroStrategy Beta Consultants work as traveling Quality Engineers and frequently interact with both alpha and beta software. At times I had to directly edit data files or windows registry entries in order to install or run the software. The technology department asked for help setting up two Solaris servers. I set up their networking and assisting with the iPlanet Web software installation. On customer sites with beta versions of our proprietary Business Intelligence software I ran rigorous tests analyzing functionality, performance, and features in conjunction with the customer's environment and data. I also offered presentations to the customers on new functionality and managed the customer's expectations, logging requests for enhancements or alterations to the software design. The testing required working with both Windows 2000 and NT Operating Systems and troubleshooting networking and server setups, creating a broad familiarity with the Windows platforms. Additionally, one of our software products was an email delivery engine requiring that I become familiar with SMTP.

**GRADUATE RESEARCH ASSISTANT**  
*Massachusetts Institute of Technology FBML*

SEPTEMBER 1998 TO JANUARY 2000  
*Cambridge, Massachusetts*

Using a tape wound superconducting magnet provided by a Korean corporation I performed transient thermal experiments when driving the magnet with a square current pulse. I set up a UNIX server in my office running NetBSD from which I wrote computer simulation routines in C that would sometimes run for many hours. The experimentation required the use of thermocouples, cryostat dewars, high current HP power supplies, and lots of liquid nitrogen. The culmination of the project was a Master's Thesis that included both mathematical and theoretical computation combined with experimental data analysis and computer simulation results.

**SENIOR RESEARCHER**  
*Brigham Young University Physics Department*

MAY 1997 TO AUGUST 1997  
*Provo, Utah*

As an assistant systems administrator for the acoustics group HP-UX server I was responsible for software installation, maintenance and user access control. Two of the software packages I installed, I-DEAS, a CAD program, and SYSNOISE, an FEM acoustics simulation package, were used in my research to develop Finite Element Models of a jet engine for acoustic analysis by another PhD student.

## EDUCATION

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY**  
*M.S. Mechanical Engineering*  
GPA 4.5 / 5.0

CAMBRIDGE, MA  
*February 2000*

Course Work included

- Dynamic Systems, studying the motion of 3 dimensional rigid bodies
- Laminar and turbulent fluid flow
- Thermal Conduction, including convective, transient, and steady state behavior
- Engineering Management, wrote a business proposal for a medical device company which was reviewed by Alex de Arbelov, founder of Terradyne.

**BRIGHAM YOUNG UNIVERSITY**  
*B.S. Honors Applied Physics & Mathematics*  
GPA 3.81 / 4.0

PROVO, UT  
*April 1998*

- Trustee Scholar 4 year full tuition
- University and departmental honors upon graduation
- Course work in Mechanical Engineering and Numerical Methods emphasized

## PERSONAL

**PUBLIC RELATIONS MANAGER**  
*Cougar Pride, a BYU Athletic Promotion Club*

1995 TO 1997  
*Provo, Utah*

**MISSIONARY FOR THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**  
*Alaska, Anchorage Mission*

1993 TO 1995  
*Alaska*

**EAGLE SCOUT**  
*Boy Scouts of America*

1991  
*Orange County Council*

## TECHNICAL ABILITIES

**Operating Systems:** NT 4.0, Win2000, Solaris, Linux, NetBSD, HP-UX, OpenVMS

**Platforms:** PC, UNIX

**Programming Languages & Formats:** VB, C, C++, Javascript, Java, XML, HTML, XSL, Pascal, Prolog, PHP

**Database Platforms:** MS SQL Server, Oracle

**Web Development Applications:** Front Page, First Page 2000, HomeSite

**Networking:** TCP/IP, HTTP, FTP, SMTP, DHCP, DNS, WINS, NFS, SAMBA,

**PC Hardware:** PCI, ISA, AGP, IDE Processors

**Remote Communications Software:** PCAnywhere, NetMeeting, VNC