***EDUCATION***

* B.S. Computer Science, University of Texas at San Antonio, San Antonio, TX (1999)

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| **PROFESSIONAL HIGHLIGHTS** |
| * 10 years experience working with various operating systems and programming languages. * 10 years experience conducting Developmental Test and Evaluation (DT&E) of current and new Information Operations (IO) Capabilities. * 2 ½ years experience developing Information Security tools for the Air Force. * Proficient in over 11 programming languages and 6 networking protocols. * 8 years Telecommunications experience * An expert in network administration |

PROFESSIONAL EXPERIENCE SUMMARY

Mr. Chandler has been performing test planning, execution, and reporting for the last 10 years as a Test Engineer. Mr. Chandler’s testing has been focused on AFI 99-103 Developmental Test and Evaluation (DT&E) of state-of-the-art Information Operations (IO) Systems. Mr. Chandler has continuously participated in the planning of AFI 99-103 Operational Test and Evaluation (OT&E) events. As part of a Combined Test Force, Mr. Chandler has evaluated and overseen Contractor sub-system testing, and OT&E test plans. In addition, Mr. Chandler has written and executed numerous DT&E test plans and reports providing the government with recommendations for systems’ acceptance. Mr. Chandler has been the Test Director for several key DT&E tests of state-of-the-art IO systems. Mr. Chandler’s DT&E experience includes the following:

* Software and hardware testing
* The use of commercial and free-ware based instrumentation such as Agilent Internet Advisors, Agilent Distributed Network Analyzers, Finisar Surveyors, Ethereal, and TCPDump (all Network Protocol analyzers).
* The configuration and management of both military and commercial test networks
* Configuring and maintaining a government ATM telecommunications backbone
* Configuring and maintaining a Promina 800 series Telecommunications multiplexer.
* ISDN Q.931 Messaging.
* Writing programs to perform test data analysis.
* Reviewing technical requirements and creating measurable test criteria and event test cases.
* Extensive knowledge of IP protocols including TCP, UDP, ICMP and how they apply to the security of networks.
* Use and configuration of firewalls and Intrusion Detection Systems (IDSs).
* Working with Commercial and Government Encryption Systems such as KG-194’s, KIV-19’s, and 1910 STU modems.
* Test 101 and Acq 101 Certified
* Completed Oracle 115 and 215 training.
* ISTQB Certified Tester (Advanced Level – Test Manager)

Mr. Chandler is currently working on obtaining certification as both a Microsoft Certified Systems Engineer (MCSE) and a Cisco Certified Network Administrator (CCNA) to add to his 7 years of telecommunications experience.

Mr. Chandler has over a year and a half experience working in an Infosec Lab where he has researched and verified several exploits and developed several tools for use by the Air Force. Mr. Chandler has used several development tools to aid in his task including UNIX/LINUX gcc compilers and Visual C++ for the Windows platform. His knowledge of several networking protocols including TCP/IP, UDP/IP, ICMP, SMTP, SNMP, and HTTP has aided him in the research and development of many vulnerability tools. Mr. Chandler’s knowledge of computer network configuration has helped him in maintaining the Infosec Lab as a network administrator.

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| **TELECOMMUNICATIONS RELATED EXPERIENCE** | **DURATION** | **PROFICIENCY** |
| Cisco Routers/Catalyst Switch Ops/Maint | 8 Years | Expert |
| Bay Routers Configuration and Operations | 6 Years | Expert |
| Ascend Max RAS | 5 Years | Professional |
| Promina 800 Series Multiplexer Ops/Maint | 3 Years | Proficient |
| T1 Circuit Troubleshooting | 3 Years | Proficient |
| ATM Network Design and Operation | 3 Year | Proficient |
| **OPERATING SYSTEMS** | **DURATION** | **PROFICIENCY** |
| Solaris Operating System | 7 Years | Professional |
| HPUX Operating System | 1 Year | Proficient |
| AIX Operating System | 2 Year | Professional |
| Windows 95 Operating System | 8 Years | Professional |
| Dos | 7 Years | Expert |
| Windows 3.1 | 6 Years | Professional |
| Windows NT 4.0 | 7 Years | Professional |
| Windows 2000 | 6 Year | Professional |
| Windows XP | 5 Year | Professional |
| Linux | 10 Years | Professional |
| Cisco IOS v 11.2+ | 8 Year | Expert |
| **LANGUAGES** | **DURATION** | **PROFICIENCY** |
| C++ Programming Language | 4 Years | Expert |
| C Programming Language | 6 Years | Professional |
| Java Programming Language | 4 Years | Professional |
| Pascal Programming Language | 1 Year | Experienced |
| Fortran Programming Language | 1 Year | Professional |
| Perl Programming Language | 8 Years | Professional |
| Python Programming Language | 1 Years | Proficient |
| Icon/Idol Programming Languages | 2 Years | Expert |
| Sed/Awk Scripting Languages | 1 Year | Experienced |
| Lisp Programming Language | 1 Year | Experienced |
| Sparc Assembly Programming Language | 1 Year | Experienced |
| Hyper Text Markup Language | 5 Years | Experienced |
| **OTHER** | **DURATION** | **PROFICIENCY** |
| Oracle Discoverer | 1 Year | Proficient |

SPECIFIC SKILLS

**Networking**: TCP/IP, UDP/IP, DNS, SNMP, SMTP, NetBIOS, SMB, HTTP, RIP, OSPF, BGP, and ISDN Q931 Messaging

## **Computer Security**: Firewalls, Routers, Intrusion Detection Systems, Hacker Methods / Signatures, Virus reverse-engineering and analysis and prevention

SPECIFIC EXPERIENCE

**Northrop Grumman Information Technology/TASC, Test Engineer (Sep 2000 – Present)**

**Duties/Responsibilities:**

Mr. Chandler is responsible for the test plan and test report development for Developmental Test and Evaluation (DT&E) of state-of-the-art Information Operations (IO) Systems. This work includes analyzing both Government requirements and IO System documents to produce Measures of Effectiveness and Measures of Performance to be used as input into Government decisions for System acceptance. He is also responsible for developing IO environments to be used during testing events. As a previous system/network administrator, Mr. Chandler is responsible for helping to maintain an internal administrative/office network. This includes troubleshooting and maintaining network connections to all office/administrative computers and setting up new computers and network connections. He is also responsible for helping to maintain a test bed network. This includes maintaining current network topology information, network reconfigurations for different tests, and maintaining over 20 routers that make up the test bed network.

**Skills Utilized:** Mr. Chandler has knowledge of C, C++, Perl, and Java and he has knowledge of Unix, Linux, and Windows NT as a programmer and an administrator. He has experience working with C compilers for Unix/Linux including gcc, g++, and cc. He also has extensive knowledge and experience using Visual Studio/Visual C++ for the Microsoft Windows platform for development. Mr. Chandler has knowledge of presentation skills that have been used to both prepare and deliver demonstrations for multiple sized groups of people. He is very knowledgeable with performing research and analysis of computer security vulnerabilities. Mr. Chandler helped train junior/inexperienced members of the team, thus expanding the team’s support to the customer. Mr. Chandler has extensive knowledge with Cisco router configuration including but not limited to sub-netting several networks and setting up ACL’s for said networks. Mr. Chandler also has experience setting up Microsoft Exchange servers for both testing and internal use. He has experience finding unique string values from various hacker exploits and viruses to be used by the Air Force’s IDS systems. He has experience working with several firewalls and filtering technologies used to attack against to find ways to infiltrate network devices hidden behind such firewall/filtering software. Mr. Chandler has knowledge of setting up Microsoft WindowsNT 4.0 Servers to serve as DNS servers. He has extensive knowledge with the use of the Windows Registry for configuration and security purposes.

**Computer Science Corporation, Associate Member of the Technical Staff (Jan 1999 to Aug 2000)**

**Duties/Responsibilities:**

Mr. Chandler is responsible for verifying vulnerabilities in operating systems and applications. He works extensively with Windows NT, Unix, and Linux. His knowledge of several networking protocols has aided in the research and development of vulnerability tools. Mr. Chandler has extensive knowledge and skill in programming using C, C++, and Java. He developed several detection tools for the Air Force including a FrontPage Extension detector tool, BO2K detector tool, and detection tools for several Distributed Denial of Service programs. Mr. Chandler was also responsible for maintaining an inventory of the software used by the Infosec team. He was responsible for performing network administration duties for the Infosec testing lab. This included the use of several administration tools to include nmap, netcat, nbtstat, nestat, traceroute, as well as the maintenance necessary to ensure network integrity through consistent policing/repair/creation of a high variety of lines and cables. His duties included the installation of several OS’s (WindowsNT/2000 Server and Workstation, Windows98, and Red Hat Linux versions 5.0 thru 6.2), configuration of the target computers for network connectivity using TCP/IP as the transport protocol, configuration of a Cisco 3600 series router to route for various separate sub-nets, the use of custom cabling, and the installation & use of packet sniffers. In addition, Mr. Chandler is responsible for the installation, testing, and experimentation of various anti-virus software including Norton and McAfee Desktop/Groupware Anti-Virus scanners.