**Mr. Patrick T. Stingley**

**Veteran: USMC 1982 – 1986 P.O. Box 651 U.S. Citizen**

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**SUMMARY**

Mr Stingley is a Harvard trained professional, focusing on Data Science, Artificial Intelligence and Zero Trust architecture and planning. He is currently enrolled in a remote program at MIT focusing on designing and building Artificial Intelligence products and services and he is also a Doctoral Candidate in the field of Artificial Intelligence. He has been a recognized thought leader in cloud computing and has won awards for being one of the most innovative employees in the federal government.

**Previous Top Secret / SCI Clearance, Masters Degree (MS-IST), PMP, ITIL/F, CEA, CCNA, CCNP, CISSP, Current PhD Candidate in Artificial Intelligence, Kansas State University.**

**EXPERIENCE**

**Data Scientist / Artificial Intelligence Researcher September 2015 to Present**

**Computer Specialist – GS-2210-15**

**Bureau of Land Management, Department of the Interior Washington, DC**

**Primary Supervisor: Daniel Ialenti, Operations Div Chief, Phone: 303-236-1049 Hours per Week: 40**

Mr Stingley has primarily been doing data science, Artificial Intelligence and Zero Trust planning for the Bureau of Land Management. In addition to doctoral level coursework in Artificial Intelligence, he wrote a three-level neural network in Python that does handwriting image recognition as an AI demonstration. He also has a chatbot, based on Llama 2 running on his laptop. As recently as the second week of September 2023 he has been leading a across government team in cataloging AI tools so that these kinds of investments can be aligned with federal fiscal policy.

With respect to Data Science, he developed the Bureau’s only Data Reference Model, aligning the structured data holdings with the Federal Enterprise Architecture Framework (FEAF). He regularly uses data science to produce management data such as identifying IOT devices.

He has written numerous Python programs to clean and manipulate the Bureau’s data. One of these is an automated software inventory alignment tool that sorts and counts the 1.6M pieces of software on the organization’s network and aligns them with the primary service each performs in accordance with an augmented version of the FEAF, then these categories are aligned with the TBM taxonomy, thus moving the entire enterprise into the Government’s newly adopted TBM taxonomy. This tool has been adopted government wide in the Federal IT Investment Management Community of Practice and can be found on the OMB MAX portal. He frequently gives presentations to other Agencies across the Government demonstrating the tools he’s built and aiding in them in their migration to TBM.

Because automated software inventory tools do not recognize the threat that such things as python scripts could be to an organization, he wrote a program that can scour a file server for .py, .bat and other kinds of scripts. He also demonstrated that it is possible to automatically determine what these scripts do by submitting them to ChatGPT. In this way it is possible to create a database of existing scripts along with their functions. While it can potentially identify potential security threats, this tool also has the potential to provide positive returns because in cataloguing existing scripts in the enterprise, it is possible for users to re-use these scripts rather than branching out on their own to write new ones (with varying levels of success).

Mr Stingley has written his organization’s Zero Trust Architecture and plan. As part of this effort, he used ChatGPT to aid in creating a requirements matrix based on NIST 800-127.

**Chief Technical Officer September 2008 to Sept 2015**

**Computer Specialist – GS-2210-15**

**Bureau of Land Management, Department of the Interior Washington, DC**

**Primary Supervisor: Al Tariq Samuels, Phone: 202-915-7575 Hours per Week: 40**

He has held CTO positions in private industry, but it was his work at the highest levels of government where the excellence of his work was recognized, and he was elevated to the position of CTO for the Federal Cloud.

As Chief Technology Officer for the Bureau of Land Management, Mr Stingley authored an Information Technology (IT) strategy and cost model utilizing a four-prong approach to cloud implementation to result in a recurring annual savings of $80M for federal agencies based on figures he gathered at the Bureau of Land Management. Because of this document, Mr Stingley was recognized as one of the 20 most innovative federal employees in the United States.

Mr Stingley was a leader in data center consolidation, having consolidated over 85% of his Bureau’s data centers resulting in an overall savings of over $4.5M. Because of the many unknowns involved in this process, he selected an innovative. rolling-wave management approach. The consolidation documentation and cost models he developed were adopted Department-wide.

As a result of the below mentioned papers he wrote for the White House about Cloud Computing, Mr Stingley was invited to serve as the first CTO for the Federal Cloud. Working closely with NIST and GSA, he defined a service catalog for cloud computing. He is personally responsible for elasticity being part of the definition of cloud computing.

He was one of the founders of Data.Gov. During his tenure on this project, he worked to formulate the metadata underpinnings for Data.gov. He demonstrated how the Semantic Web could link Government data, created a Web Ontology Language (OWL) Ontology for Data.gov and authored a Data Management Plan for the Federal Government (see publications). He also authored one of the early papers behind FedRAMP, recommending SAML as a means of authenticating with commercial clouds. Before returning to the Bureau level to pursue further research into cloud implementation, Mr Stingley designed a nationwide cloud infrastructure for the Department of the Interior.

During his tenure at DoI/BLM Mr Stingley received numerous outstanding performance ratings, cash awards completed the coursework for the FAC/PPM, attended the course on Protégé at Stanford, and several doctoral level courses in artificial intelligence.

**Office of Management and Budget February to September 2008**

**Computer Specialist – GS-2210-14**

**Executive Office of the President Washington, DC**

**Primary Supervisor: Eric Won, Phone: 202-208-2557 Hours per Week: 40**

After completing his work reviewing the enterprise architectures for 13 federal agencies, including the DoD, Mr Stingley continued to provide assistance at the agency level to these organizations. In addition to these duties, he also accomplished the following:

* Wrote two white papers for OMB describing the implications of cloud computing for Federal Agencies.
* Developed a nationwide WAN consolidation plan for the U.S. Government, which identified major vulnerabilities in the Nation’s Critical Information Infrastructure
* Authored a refined definition for the IT Infrastructure Line of Business as well as documents on security and Web 2.0

**Branch Chief, Enterprise Architecture Branch, DS Bureau October 2006 to September 2008**

**Computer Specialist – GS-2210-14**

**U. S. Department of State, Bureau of Diplomatic Security Washington, DC**

**Supervisor: Brian Jablon, Phone: 571-345-2243 Hours per Week: 40**

As Branch Chief for the Bureau of Diplomatic Security’s Enterprise Architecture Branch, he established the practice of Enterprise Architecture within the Bureau. Within his first 90 days, he created a fully functional Enterprise Architecture Model implementing all facets of OMB’s Consolidated Reference Model using SharePoint so that it could be used across the Bureau and made available Department wide. Other accomplishments included:

* Performed a risk assessment for the Bureau.
* Identified $2M of savings by establishing a group license for one of its COTS software packages, and another $9M of future savings by establishing such a contract.
* Identified 604 applications running in the Department of State, thus creating the first Department-wide software baseline.

Mr. Stingley also became a Certified Enterprise Architect from the FEAC Institute, receiving “A”s in all of the post graduate course comprising the certification. He achieved the PMP certification and consistently received Outstanding Performance Appraisals.

**Deputy Branch Chief, Software Development, Executive Secretariat May 2006 to October 2006**

**IT Program / Project Manager, Bureau of Consular Affairs February 2003 to October 2006**

**Computer Specialist – GS-2210-13**

**U. S. Department of State Washington, DC**

**Primary Supervisor: Richard Martin (Retired) Hours per Week: 40**

Before being asked to become the Deputy Branch Chief for Software Development within the Executive Secretariat, Mr Stingley was the Program Manager for the Passport Database as well as three other major programs in the State Department. During his tenure, he authored several policy documents codifying the systems development life cycle for Consular Affairs and for Passport Systems, wrote several white papers describing future directions for systems design, including Enterprise Application Programming (EAP), Agile Development using a SCRUM methodology, ".Net" versus CORBA & J2ee, Network and System Security, and Biometrics.

* Established Enterprise Network Management by setting up network monitoring for the Passport network and trained the helpdesk to monitor the network. Identified and remedied several nationwide network outages.
* Identified several pervasive problems throughout the networks in all of the Passport Agencies. Engineered and personally upgraded the networks in each Passport Agency, resulting in a performance improvement of 3600%.
* Managed and wrote Memoranda of Agreement for data sharing arrangements with other agencies.
* Personally identified and documented all databases used in Consular Affairs and created Entity-Relationship diagrams and Data Dictionaries for them. This initiative resulted in the first published artifacts to the Data Administration Working Group (DAWG) so that it could be incorporated as part of the Department’s Data Reference Model. Received Certificate of Excellence for this work.
* Created and implemented an agile development methodology based on iterative development, incremental delivery, and frequent build methodologies compatible with Earned Value Management (EVM).
* Consistent Outstanding Performance Appraisals, as well as a cash award for a beneficial suggestion that averted a problem that could have resulted in American travelers being arrested overseas for having passports erroneously listed as being lost or stolen.
* **Achieved CISSP Certification**

**Lead Consultant August 2000 to February 2003**

**Blue Light Technologies, Inc. Silver Spring, MD 20910**

**Supervisor: Sally Sternback (301) 585-8848 Hours per Week: 40**

Served as Chief Technology Officer to several companies. Developed and delivered N-Tier computer systems. Assisted in the development of a layer 2-4 switch. Set up a test-bed and developed testing procedures to evaluate potential platforms and software approaches. Designed, developed and programmed client/server applications in both UNIX and Windows environments that perform a myriad of services such as Internet Directory Services, VoIP, Text-to-Speech, and language translation.

* Designed and built network appliances that transmit and display Voice over IP (VoIP) and Video over IP. Developed budgets, time-lines, Test Plans, and Program Plans. Wrote, negotiated, and concurrently managed multiple contracts and project teams during this development.
* Named as Inventor on a patent for a wavelet & IP based video-teleconferencing network appliance.
* Achieved Cisco CCNA & CCNP Certification as well as in Juniper Router configuration and MPLS.

**Data Center & Network Operations Center Architect and Manager December 1999 to August 2000**

**UUCom, Inc. (Now Defunct) Reston, VA**

**Supervisor: Rob BonGiovanni, (703) 421-4455 Hours per Week: 40**

Planned, designed and assembled a state of the art Data Center and Network Operations Center (NOC) for an application service provider. Produced trade-off analyses, ROI analyses, Staffing Plans, Project Plans, time-lines, marketing and sales strategies and multi-year budgets. Had full hiring, promotion, and firing authority for the 20+ staff members.

* Selected, installed and configured all types of computing and networking systems for the Data Center & NOC. Established peering relationships on the backbone of the Internet. Registered handle in the RADB database.
* Trained staff to troubleshoot and maintain the telecommunications lines and equipment that comprised the company's multi-homed BGP/OSPF network. Also personally trained staff in the UNIX systems Administration, networking, help desk operations, the use of HP OpenView and Perl programming.

**Lead Consultant, Network engineer & Systems Architect July 1997 to December 1999**

**Blue Light Technologies, Inc. Silver Spring, MD**

**Supervisor: Kurt Snyder (425) 821-5615 Hours per Week: 40**

Founded and ran a successful computer consulting and services company that grew from a privately funded startup to one with over a million dollars in revenue inside of two years. Provided executive level consulting and taught courses in Cisco Router configuration (both basic and advanced) and T1/T3 provisioning and telecommunications. Served as primary Project Manager and Technical lead for many of the projects, including hiring, firing, marketing, billing, payroll, and P & L. As an outside contractor, developed and delivered an enterprise wide automation system for Goodman Holdings that included Intranet, Extranet, and Internet capabilities. For this project, gathered business requirements, devised a highly scalable solution architecture that was web based on a Java middle-tier and an Oracle based database layer. Responsibilities included: Writing functional descriptions, design documents test plans; Platform selection; Design & implementation of server farms, custom built servers, Cisco routers, and firewalls; Designed and implemented a nationwide Frame Relay network with ISDN backup; Hiring contract developers; Overseeing development, CM, QA and testing.

**Network Manager and Operations Manager December 1996 to June 1997**

**CDI, Inc. Philadelphia, PA**

**Hours per Week: 40**

Served as operations manager for a nationwide company of 30,000 employees spread among 100 offices. Managed 3 data centers and the Networking staff. Designed and implemented an enterprise network including a Frame-Relay Wide Area Network (WAN) to all of the offices. Established baselines for hardware, operating systems, and software for all computers and networking equipment. Performed security audits and gathered security requirements, to create a corporate IT security and firewall strategy. Built a work-order and Configuration Management system (using MS-Access with a web front end.)

* Trained staff in implementation and maintenance of Domain Name Service, Project Planning, UNIX, Networking, HTML, Network Security, Router installation & Configuration, Cisco Works, and HP-OpenView.
* Drafted MIS policy and procedures, including: Identified business critical operational systems and developed disaster recovery plans.

**Network Manager & BPR/DPR Engineer December 199 to December 1996**

**Pep Boys, Inc. Philadelphia, PA**

**Hours per Week: 40**

Managed the network and a staff of five overseeing this 1500+ node LAN consisting of a combination of Ethernet, Token Ring, Cisco Routers, Switches, Several flavors of UNIX, MS-Windows, Win95, WinNT, and an IBM Mainframe. On the WAN side, maintained the networks in 500 stores adding 3 new stores each week. Re-designed the corporate network infrastructure to provide secure Internet connectivity.

Migrated the WAN from point-to-point circuits carrying IP and SNA traffic to Frame-Relay for a savings of $500,000.00. Set up a test lab to test various solutions and demonstrated a satellite based video conferencing system to allow Pep Boys headquarters to view and monitor stores all over the country.

**Network Engineer and Security Consultant September to December 1995**

**PenCom at the Philadelphia Stock Exchange Philadelphia, PA**

**Hours per Week: 40**

Performed a Security Audit of the entire company, then developed, tested and installed a firewall for a company trading on the Philadelphia Stock Exchange.

**Computer Specialist and Network Administrator, GS-0334-14 December 1989 to August 1995**

**National Weather Service, NOAA Silver Spring, MD**

**Hours per Week: 40**

Personally put the National Weather Service on the Internet. Following a "Re-inventing Government" suggestion to Vice President Gore. Developed a multiyear program plan, and then executed it. Developed the first website, set up the servers, and created a method for an IBM mainframe to continuously update the website.

**Developed a global emergency management system for the United Nations, Department of Humanitarian Affairs (Project IERRIS).**

**EDUCATION**

**Designing and Building AI Products and Services Massachusetts Institute of Technology 2023**

**PhD Coursework in Artificial Intelligence at Kansas State University**

**PhD Coursework in Artificial Intelligence at the University of Maryland, Baltimore Campus**

**M.S., Information Systems, 1994 GPA: 3.9**

**The George Washington University, Washington, DC**

**B.S., (139 Semester Hours), Geology and Meteorology, 1977-1981**

**Slippery Rock State College, Slippery Rock, Pennsylvania**

**30 Semester Hours, Computer Science and Electronics, 1987-1990 GPA 4.0**

**Northern Virginia Community College, Woodbridge, Virginia**

**PMP-2007**

**CEA - 2007**

**CISSP - 2005**

**Cisco CCNP - 2002**

**Cisco CCNA - 2001**

**Juniper Router Configuration and Certification – 2001**

**HONORS, AWARDS, MEMBERSHIPS**

**Editor, Journal of the American Medical Informatics Association (JAMIA)**

**Tech BISNOW Award for Most Innovative in Government 2015**

**Multiple Copyrighted Publications at Library of Congress 2008 - 2017**

**Patent on Wavelet Based Teleconferencing Network Appliance - 2000 & 2001**

**Recipient of Society of Logistic Engineers Merit Scholarship 1991, 1992**

**Recipient of Phi Theta Kappa Merit Scholarship - 1989**

**Adjunct Professor at Northern Virginia Community College - Developed and taught a course on UNIX**

**Publications include: "Internet Based Emergency Management - (8/94 issue of "Stop Disaster", publ. by U.N.**

**PC based Virtual Reality Systems, published in VRASP Journal**