**SUMMARY**

Harvard and MIT trained professional with expertise in Data Science, Artificial Intelligence, and Zero Trust architecture and planning. Completed a program with MIT focused on designing and building AI products and services. A Doctoral Candidate in Artificial Intelligence with recognized thought leadership in cloud computing. Former Marine Officer. Previous Top Secret / SCI Clearance, Masters Degree (MS-IST), PMP, ITIL/F, CEA, CCNA, CCNP, CISSP, and is a Current PhD Candidate in Artificial Intelligence at Kansas State University. Portfolio: github.com/pstingley/Portfolio https://www.linkedin.com/in/patrick-stingley

**EXPERIENCE**

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

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

* Authored the Artificial Intelligence plan for the Bureau of Land Management using a hands-on approach that included:
  + Developing multiple AI tools including CNNs, RNNs, LSTMs, DistilBERT, Naïve Bayesian Trees, Random Forest, Support Vector machines, some written from scratch in Python, some using PyTorch and then re-written in TensorFlow / Keras. Developed RAGs.
  + Evaluating a dozen vector stores. Personally set up ChromaDB, pgvector and Pinecone.
  + Developing in native Python, Jupyter, Colab, and Docker Containers.
  + Internally hosting several large language models, most recently including Llama 3.2.
* Currently writing a college level course in Data Visualization for Kansas State University.
* Spearheaded a government-wide initiative to catalog AI tools aligning with federal fiscal policy.
* Established the Bureau’s Data Reference Model, aligning structured data holdings with the Federal Enterprise Architecture Framework (FEAF).
* Developed Python programs for data manipulation, including an automated software inventory alignment tool adopted government-wide.
* Created a tool to identify and catalog existing scripts on the enterprise network, enhancing security and promoting script reuse.
* Developed a full, working, Zero Trust architecture and an implementation plan to accompany it.
* First from Bureau be a Senior Executive Fellow at Harvard.

**Chief Technical Officer** BLM September 2008 - September 2015

* Wrote IT Strategic Plan, other planning document and policy documents.
* Planned and executed data center consolidation, consolidating over 85% of the Bureau’s data centers, resulting in a $4.5M savings.
* Recognized as one of the 20 most innovative federal employees in the U.S. for an IT strategy resulting in $80M annual savings for federal agencies.
* Defined the service catalog for cloud computing
* CTO for the Federal Cloud.
* Designed a nationwide cloud infrastructure for the Department of the Interior.
* Co-founder of Data.Gov. Developed a knowledge graph for that effort.
* Received outstanding performance ratings, cash awards, and completed coursework in FAC/PPM and Protégé at Stanford.

**Enterprise Architect** ExecutiveOffice of the President February to September 2008

* Reviewed and recommended improvements to enterprise architectures for 13 federal agencies, including the DoD
* Wrote white papers for the White House detailing the implications of cloud computing for Federal Agencies.
* Developed a nationwide WAN consolidation plan for the U.S. Government, identifying major vulnerabilities in the Nation’s Critical Information Infrastructure.
* Authored a refined definition for the IT Infrastructure Line of Business and documents on security and Web 2.0.
* Authored two papers on cloud computing.

**Chief, Enterprise Architecture Branch** DS Bureau, Department of State Feb 2007 to Feb. 2008

As Branch Chief for the Bureau of Diplomatic Security’s Enterprise Architecture Branch, Mr. Stingley established the practice of Enterprise Architecture within the Bureau, achieving notable accomplishments:

* Created a fully functional Enterprise Architecture Model within 90 days, implementing OMB’s Federal Enterprise Architecture Framework and making this available enterprise wide via SharePoint.
* Conducted a risk assessment for the Bureau.
* Identified $2M in savings by establishing a group license for a COTS software package and $9M in future savings through a contract.
* Identified and documented 604 applications running in the Department of State, establishing the first Department-wide software baseline.
* Certified Enterprise Architect from the FEAC Institute with consistent Outstanding Performance Appraisals.
* Achieved PMP certification.

**Deputy Branch Chief** ExecutiveSecretariat Oct 2006 to Feb 2007

Led the team of developers who directly supported the Secretary of State and staff using low-code and agile methodologies.

**Project Manager**  Department of State Feb 2003 to Oct 2006

Ran the Passport Database for the Federal Government. Notable achievements include:

* Developed and implemented an agile development methodology based on iterative development, incremental delivery, and frequent build methodologies compatible with Earned Value Management (EVM).
* Established Enterprise Network Management, resulting in the identification and remediation of nationwide network outages.
* Engineered and upgraded networks in each Passport Agency, achieving a performance improvement of 3600%.
* Managed and wrote Memoranda of Agreement for data-sharing arrangements with other agencies.
* Identified and documented all databases used in Consular Affairs.
* Worked in the Situation Room during international emergencies.
* Consistent Outstanding Performance Appraisals, CISSP Certification, and a cash award for a beneficial suggestion that averted a potential issue for American travelers.

**Lead Consultant**  Blue Light Technologies Aug 2000 to Feb 2003

* Served as Chief Technology Officer for multiple companies, developing and delivering N-Tier computer systems. Key achievements include:
* Designed and built network appliances for Voice over IP (VoIP) and Video over IP transmission.
* Named as an inventor on a patent for a wavelet & IP-based video-teleconferencing network appliance.
* Search Engine Optimization (SEO)
* Restored nationwide telecommunications for the country of Thailand.
* Achieved Cisco CCNA & CCNP Certification, along with Juniper Router configuration and MPLS.

**Data Center and NOC Architect & Mgr. UUCOM** May to Oct 2008

Planned, designed, and assembled a state-of-the-art Data Center and Network Operations Center (NOC) for an application service provider. Responsibilities included:

* Selected, installed, and configured computing and networking systems for the Data Center & NOC.
* Trained staff in telecommunications lines maintenance, UNIX systems administration, networking, help desk operations, and Perl programming.
* Achieved full hiring, promotion, and firing authority for a team of 20+ staff members.
* On the RADB database, authorized to do administration on the backbone of the Internet.

**Lead Consultant, Network Engineer, Sys Architect** Blue Light Tech. Jul 1997 to Dec 1999

Founded and managed a successful computer consulting and services company. Key achievements include:

* Grew the company from a startup to over a million dollars in revenue within two years.
* Provided executive-level consulting, taught courses in Cisco Router configuration, and served as the primary Project Manager and Technical lead.
* Developed and delivered an enterprise-wide automation system for Goodman Holdings.

**Net Mgr. Ops. Mgr**  CDI Inc. Dec 1996 to Jun 1997

Managed operations for a nationwide company of 30,000 employees across 100 offices, including the design and implementation of an enterprise network. Achievements include:

* Planned, designed and implemented a Frame-Relay Wide Area Network (WAN) to all offices.
* Conducted security audits and developed corporate IT security and firewall strategies.
* Implemented a work-order and Configuration Management system using MS-Access.

**Net Mgr. & BPR/DPR Engineer**  PepBoys Inc. Dec 1995 to Dec 1996

Managed the network and staff overseeing a 1500+ node LAN. Key accomplishments include:

* Added three new networks per week
* Redesigned the corporate network infrastructure to provide secure Internet connectivity.
* Migrated the WAN from point-to-point circuits to Frame-Relay, resulting in significant cost savings.
* Demonstrated a satellite-based video conferencing system for nationwide store monitoring.

**Network Engineer & Security Consultant**  Phila. Stock Exchange Sept 1995 to Dec 1995

Conducted a security audit, then built a proxy-based firewall.

**Computer Specialist / Net. Admin.** National Weather Service Dec 1989 to Aug 1995

* Put the National Weather Service on the Internet
* Developed a global emergency management system for the United Nations, Department of Humanitarian Affairs (Project IERRIS).
* Built Speech Synthesis systems and then contracted for the Weather Radio’s Speech Synthesis system.
* Prototyped Human Computer Interface (HCI) devices to include tactile gloves, virtual reality (VR) headsets, augmented reality headsets.
* Created a PC based, IP based, video teleconferencing system (VTC) (CUSeeMe)
* Co-authored the Simple Time Protocol (STP) which is distributed as part of embedded Linux

**Adjunct Professor** Northern Virginia Community College Jun 1991 to Dec 1993

Wrote and taught a course in UNIX. This included modifying a version of UNIX Ver5 to boot from a 5.25” floppy disk and then to go multi-user by adding files on a second floppy disk.

**Lead PC Programmer** Army Operations Center, The Pentagon Jun 1988 to Dec 1989

Developed classified systems for the Federal Government.

**EDUCATION**

***Massachusetts Institute of Technology****, 2024*

* Designing and Building AI Products and Services

***Kansas State University***

* PhD Coursework in Artificial Intelligence

***Harvard, Kennedy School****, 2019*

* Senior Executive Fellow

***University of Maryland, Baltimore Campus***

* PhD Coursework in Artificial Intelligence

***The George Washington University****, Washington, DC, 1994*

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

***Slippery Rock State College, Slippery Rock****, Pennsylvania, 1977-1981*

* B.A., Geology and Meteorology

***Northern Virginia Community College****, Woodbridge, Virginia, 1987-1990*

* 30 Semester Hours, Computer Science and Electronics
* GPA: 4.0

**CERTIFICATIONS**

* ITIL/F 2015
* PMP-2007
* CEA - 2007
* CISSP - 2005
* Cisco CCNP - 2002
* Cisco CCNA - 2001
* Juniper Router Configuration and Certification – 2001

**HONORS, AWARDS, MEMBERSHIPS, PUBLICATIONS**

* Editor, Journal of the American Medical Informatics Association (JAMIA)
* Multiple conference presentations about cloud computing and agile development
* 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," published by U.N.), PC-based Virtual Reality Systems published in VRASP Journal