JEREMY SPRADLIN

Machine Learning Engineer | Signals Intelligence | Data Scientist
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ACTIVE TOP SECRET / SCI SECURITY CLEARANCE
USMC Combat Veteran (Iraq 2003, 2004) | 20+ Years Technical Experience

PROFESSIONAL SUMMARY

Machine Learning Engineer and decorated Marine Corps veteran with an active TS/SCI security clearance and 20+ years of technical experience spanning signals intelligence, ISR systems, computer vision, and applied AI. Specializes in building production-grade ML pipelines — including anomaly detection, crowd analytics, and deep learning for distributed systems — with hands-on expertise in Python, TensorFlow, Keras, Kubernetes, and Azure. Uniquely positioned at the intersection of cleared national security environments and modern AI/ML engineering. Published author in data science. Proven ability to communicate complex technical concepts to both cleared operators and civilian leadership.

CORE TECHNICAL COMPETENCIES

AI / ML	Deep Learning · Computer Vision · NLP · Anomaly Detection · Recommendation Systems · Predictive Modeling
Frameworks	TensorFlow · Keras · PyTorch · Scikit-learn · Flask · FastAPI · OpenCV
Languages	Python · Go · JavaScript · Java · SQL · Swift · Bash
Infrastructure	Kubernetes · Docker · AWS · Azure · CI/CD · DevOps · Heroku
Data & Databases	PostgreSQL · MySQL · MongoDB · MSSQL · Data Mining · Signal Processing
Networking / SIGINT	TCP/IP · GSM · LTE · 802.11 · IoT · ISR Systems · RF Communications
Clearance	Active Top Secret / SCI — United States Government

PROFESSIONAL EXPERIENCE

Machine Learning Engineer | **KnowledgeBridge International** — Chantilly, VA (Remote) *Sept 2021 – Present*

- Designed and deployed distributed Kubernetes-based image analysis systems, improving data processing throughput by 25%+ across high-volume production pipelines
- Built and optimized computer vision pipelines for IoT sensor networks, enabling real-time object detection, crowd counting, and behavioral tracking in operationally sensitive environments
- Developed anomaly detection models for crowd analysis systems using deep learning techniques, reducing false positive rates and improving situational awareness accuracy
- Engineered personalization and recommendation algorithms for a production social media platform serving active users, increasing engagement metrics by 20%+
- Delivered demo-ready, production-quality ML code under mission-critical deadlines in a classified-adjacent environment; collaborated across engineering, product, and operations teams
- Developed PyTorch-based models for drone detection using multimodal RF and acoustic signal inputs, leveraging OpenCV for signal preprocessing and feature extraction.

Technical Instructor II | **Johnson Controls** — Boca Raton, FL *Apr 2018 – Apr 2020*

- Led comprehensive technical training programs for ES Fire Detection platforms, increasing team certification rates and operational proficiency
- Spearheaded migration from classroom to online training delivery, increasing course participation by 30% while maintaining an NPS consistently above 70
- Leveraged instructional design skills to create clear, outcome-driven curriculum for technical audiences

Technical Operations Specialist II | **SR Technologies (SRT Group)** — Davie, FL *Nov 2009 – Apr 2018*

- Managed full lifecycle development and field deployment of signals intelligence (SIGINT) and ISR products — from prototype through operational use — in support of Tier 1 operators and federal law enforcement
- Led field testing, technical training, and operational integration for classified communication security systems in high-stakes mission environments
- Provided direct technical support and customer demonstrations to cleared government clients, contributing to product adoption and mission readiness
- Maintained deep expertise in RF communications, GSM/LTE signal environments, and distributed surveillance architectures over an 8-year tenure

MILITARY SERVICE

2844 Field Radio Repairman, Corporal (Cpl) | **United States Marine Corps** — 3d Amphibious Assault Battalion *Mar 2001 – Mar 2006*

- Combat-deployed to Iraq in 2003 and 2004; managed maintenance and operation of 40+ communication systems in active theater
- Trained and led junior Marines in vehicle communication systems, contributing directly to unit mission readiness
- Developed foundational expertise in RF communications, signal systems, and field electronics that underpins 20 years of subsequent technical career

PUBLICATIONS

- "So You Wanna Data Science?" — Towards Data Science, March 2021 | spradlinjk.medium.com
- "Using Data Science to Influence Immigration Policy" — The Startup, February 2021 | AI-based immigration case monitoring and prediction
- "Interplanetary Forecasts" — Towards Data Science, February 2021 | Seasonal weather pattern detection from Mars Rover data

EDUCATION & CERTIFICATIONS

Equivalent Experience: 20+ years progressive technical experience in SIGINT, ISR, and AI/ML engineering

Lambda School — Data Science Bootcamp | June 2020 – Feb 2021

Udacity — Full Stack Nanodegree · Computer Vision Nanodegree (In Progress)

New Horizons / CompTIA — A+ · Network+ | January 2018