

# Splunk Engineering & Generative AI Integration

### **Splunk Enterprise • Splunk Enterprise Security (ES)**

- Designing AI/ML and Generative AI-enhanced SIEM architectures that merge detection, observability, and automation.
- Integrating Retrieval-Augmented Generation (RAG), large language models (LLMs), and agentic Splunk bots for real-time incident analysis, narrative generation, and context-aware search.

# **₹** PROJECTS & CODE REPOSITORIES

# Featured Projects & Platforms PwC AI/ML & Generative AI-Augmented Splunk

 Unified Splunk, AWS Bedrock, and OpenSearch for LLM-driven correlation, automation, and realtime summarization

## **Real-Time Sentiment Insights**

- AWS pipeline using Comprehend and OpenSearch for streaming sentiment analytics with Terraform automation.
- github.com/jitter-ai/aiml-realtime-opensearchcomprehend-sentiment-insights

### **Real-Time AI Fraud Detection Pipeline**

- Serverless AI/ML fraud scoring with Kinesis, Fraud Detector, OpenSearch, and Splunk for multi-sink analytics
- github.com/jitter-ai/aws-realtime-ai-fraudpipeline

# AWS Skill Builder & PartnerCast Sessions

## Al-Driven Cyber Insights: Generative Al for Splunk Powered by OpenSearch

 Demonstrated how to apply Generative AI and machine learning for Splunk security analytics using OpenSearch and SageMaker, enabling Aldriven threat detection and conversational security insights

**Presentation**: https://vimeo.com/1104611723 **Demo:** https://vimeo.com/1104611963

#### **Real-Time Threat Detection with Amazon**

# AWS Skill Builder & PartnerCast Sessions

## **OpenSearch Security Analytics**

 Built a unified SIEM solution integrating Splunk and OpenSearch with OCSF normalization for real-time threat detection and automated incident response.

**Presentation**: https://vimeo.com/1104592171 **Demo:** https://vimeo.com/1104592118

#### **Advanced Fraud Detection with AWS**

 Architected a real-time fraud detection system using MSK, Kinesis, OpenSearch, and Fraud Detector for streaming analytics and Al-driven risk scoring.

**Presentation**: https://vimeo.com/1104604778 **Demo:** https://vimeo.com/1104604690

# AI/ML Engineering, Automation & Skills

#### **Splunk Architecture & Engineering**

- Architecting enterprise-scale Splunk
   environments for security, observability, and data
   analytics- covering indexer clustering, search
   head architecture, and forwarder management.
- Developing advanced detections, correlation searches, dashboards, and SPL logic that transform data into actionable security insights.
- Implementing data onboarding, CIM normalization, and ingestion pipelines integrating cloud, endpoint, and identity telemetry.
- Automating Splunk deployment and configuration using Terraform, Git-based workflows, and modularized app packaging for repeatable, version-controlled delivery.

## AI/ML & AWS Integration

- Extending Splunk with AI/ML pipelines and Generative AI for anomaly detection, enrichment, and natural-language search.
- Integrating AWS services such as SageMaker, Bedrock, Glue, and Kinesis to enable streaming analytics, predictive modeling, and scalable data pipelines

**Explore full skill set:** https://cat-ai.io/skills/