CHARLES M. VOELKER

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Results-driven Data Science Manager with 10+ years of experience leading ML/AI initiatives in fraud prevention and risk management. Collaborative leader focused on empowering teams through technical mentorship and removing obstacles to success. Proven track record of building high-performing teams and delivering enterprise-scale ML solutions with measurable business impact.

EXPERIENCE

AMAZON WEB SERVICES (AWS), New York, NY
Data Science Manager, AWS Fraud Prevention   05/2023 – Present
- Led ML/AI strategy for fraud prevention, guiding team to deploy 200+ models that reduced manual work by 85% with over 99% accuracy
- Led team of 5 data scientists through full talent lifecycle, mentoring 2 team members to promotion
- Directed cross-functional team in launching AWS Generative AI fraud detection system, reducing fraud by 92% while maintaining user experience
- Implemented standardized MLOps practices, improving model performance by 35% and reducing deployment time by 60%

Data Scientist, AWS Fraud Prevention   05/2021 – 04/2023
- Developed real-time fraud prevention platform protecting >90% of Fortune 500 businesses, achieving 97% fraud reduction ($15M annual savings)
- Architected domain-specific embedding models using advanced deep learning techniques
- Created scalable ML infrastructure for continuous model deployment

FIDELITY INVESTMENTS, Jersey City, NJ
Senior Manager, Data Science   01/2018 – 04/2021
- Scaled Enterprise Risk Management data science team delivering 10+ ML production systems with 99.9% uptime
- Built risk management platform for $32B portfolio, reducing false positives by 65% while achieving regulatory compliance
- Directed team of 4 data scientists with quarterly OKRs and development plans, establishing executive business reviews
- Designed ML infrastructure processing hundreds of millions of daily transactions with sub-second latency

Manager, Analytics & Insights   01/2016 – 12/2017
- Patented ML-based data exfiltration detection system, reducing insider threat incidents by 75%
- Built and motivated cross-functional team of analysts and engineers, increasing team output by 30%
- Established analytics program across Corporate Risk and Compliance functions, improving risk assessment accuracy by 40%

Senior Information Technology Audit Analyst   01/2013 – 12/2015
- Led risk assessments for critical platforms and developed quantitative framework for enterprise technology risk evaluation

EDUCATION

NEW YORK UNIVERSITY, Leonard N. Stern School of Business
Master of Business Administration   05/2019
Specializations: Business Analytics, Quantitative Finance, Financial Technology

NORTHEASTERN UNIVERSITY, D'Amore-McKim School of Business
Bachelor of Science in Business Administration   12/2013

Specializations: Information Systems, Marketing

SKILLS & CERTIFICATIONS

- **Machine Learning:** Deep Neural Networks, Transformers, LLMs (GPT, BERT), Computer Vision, Anomaly Detection, Time Series
- **MLOps & Infrastructure:** MLflow, Kubeflow, SageMaker, CI/CD for ML, A/B Testing, Model Monitoring
- **Programming:** Python, R, SQL, PySpark, Git, Docker, Kubernetes
- **Cloud & Big Data:** AWS (EC2, S3, Lambda, EMR), Spark, Hadoop, Kafka, Airflow
- **Leadership:** Team Development, Technical Mentorship, Performance Management
- **Strategic Planning:** Resource Allocation, Project Prioritization, Technical Roadmapping
- **Management:** Stakeholder Communication, Agile Methodologies, Budget Management
- **Certifications:** AWS Certified Machine Learning - Specialty, Professional Scrum Master (PSM I)