SPANDAN MISHRA, PhD

Head of AI | AI & Data Science Executive

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AI and Data Science executive with 15+ years translating frontier ML research — large language models (LLMs), retrieval-augmented generation (RAG), and agentic systems — into production platforms and measurable business value. Currently Head of AI at Palo Alto Networks, leading a 15-person engineering organization that has delivered millions in ROI and streamlined enterprise operations. Pairs deep technical depth (PhD; hands-on model development) with executive fluency in AI strategy, governance, and cross-functional stakeholder leadership.

CORE COMPETENCIES

AI Leadership & Strategy: AI Transformation, Team Building & Mentorship, Portfolio Management, Executive & Board Communication, AI Governance

Generative & Applied AI: LLMs, RAG, Agentic Systems & Orchestration (LangGraph), RLHF & Post-Training, Evaluation & Observability, MLOps

Technical Foundation: Python, PyTorch, TensorFlow, Kubernetes, AWS / Azure / GCP, Knowledge Graphs (Neo4j), Bayesian Inference, Computer Vision

Business Impact: Product Strategy, Process Automation, Revenue Optimization, Responsible AI (NIST AI RMF), Change Management

PROFESSIONAL EXPERIENCE

Palo Alto Networks *Santa Clara, CA*
2022 – Present

Head of AI & Data Science, Enterprise AI *May 2024 – Present*

- Lead a 15-person AI/ML engineering organization developing enterprise AI products focused on revenue growth and operational efficiency.
- Raised sales win rates 25% and cut proposal generation time 60% by shipping an LLM- and RAG-powered agentic sales workbench — automating RFP/RFI responses and AI-driven quoting (CPQ) — now serving ~4,000 internal users.
- Reduced customer time-to-value 40% with an AI engine that optimizes technical resource allocation and accelerates project delivery.
- Established an enterprise AI governance framework, driving responsible adoption across 10+ business units and lifting operational efficiency 30%.
- Scaled the team from 3 to 15 engineers, instituting formal mentorship programs and technical career-development pathways.

Principal AI/ML Research Scientist *May 2022 – May 2024*

- Saved costs in annual cloud spend by building a predictive analytics platform for usage forecasting, improving compute procurement discounts 15%.
- Cut IT support tickets 35% by architecting and deploying the company's first RAG-based employee assistant, now handling 10,000+ queries per month.
- Pioneered the organization's first production use of LLMs for code generation and interactive chat, applying LoRA-based fine-tuning and RLHF.

Spin (Ford Mobility)

San Francisco, CA
2021 – 2022

Senior Data Scientist & Team Lead

- Prevented substantial fraudulent activity by architecting real-time deep sequence models achieving 92% precision.
- Generated significant new annual revenue with a Bayesian framework optimizing scooter charging schedules and fleet utilization.
- Led development of computer vision systems for autonomous sidewalk and parking detection in micro-mobility devices.

EARLY CAREER

Data Scientist — Wells Fargo / Fractal Analytics (2020 – 2021). Improved customer engagement 20% via ML-based personalization and marketing-ROI models.

Sr. Algorithm Engineer — Acellent Technologies (2016 – 2020). Led the NeXTFlex program, delivering structural health monitoring software for aerospace clients.

EDUCATION & RESEARCH

Ph.D., Applied Statistics and Industrial Engineering

Florida State University (2016)

Dissertation: Structural Health Monitoring with Statistical Learning.

B.E., Industrial Engineering

Tribhuvan University (2010)

Selected Publications

- Mishra, S., & Vanli, O. A. (2016). Remaining useful life estimation with Lamb-wave sensors. *Journal of Nondestructive Evaluation.*
- Mishra, S., et al. (2016). Regularized Discriminant Analysis for Multi-sensor Decision Fusion. *SPIE Smart Structures Conference.*