SUROSH NATHANIEL KUMAR, M.S.

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PROFESSIONAL SUMMARY

An innovative AI strategist and collaborative team player with emerging leadership experience, I specialize in transforming complex business challenges into data-driven solutions that deliver measurable impact. With a unique foundation combining economics and artificial intelligence, I excel at building bridges between technical teams and business stakeholders, consistently driving results through proactive problem-solving and cross-functional collaboration.

At Amazon, I demonstrated natural leadership potential by directing operations across 100+ associates while building innovative analytics solutions that generated \$1.8M in operational gains and reduced decision-making cycles by 40%. My collaborative approach enabled successful scaling of pilot solutions nationwide, mentoring team leads and fostering a culture of continuous improvement that increased internal promotion rates.

My passion for innovation shines through diverse AI projects, from developing generative AI pricing platforms for underserved markets to creating computer vision systems that influence policy decisions. I thrive in ambiguous environments, proactively identifying opportunities to apply machine learning, causal inference, and predictive analytics to solve real-world problems. Whether leading capstone projects, building customer segmentation models, or designing executive dashboards, I consistently deliver solutions that are both technically sophisticated and business relevant.

As a natural collaborator with global perspective gained from living across three continents, I bring cultural fluency and adaptability that strengthens diverse teams. My approach combines rigorous analytical thinking with creative problem-solving, enabling me to translate complex AI concepts into actionable insights for stakeholders at all levels. With strong communication skills and a growth mindset, I excel at fostering knowledge sharing and building organizational AI capability.

Ready to contribute immediately while growing into a strategic AI leader, I am committed to ethical innovation and sustainable impact, bringing both technical depth and business acumen to drive transformation in fast-paced, collaborative environments.

CORE VALUE PROPOSITION

The rare combination of technical AI expertise with business economics training that delivers immediate ROI:

• Rapid Value Creation: Turned Amazon operations challenges into \$1.8M gains within 12 months through innovative analytics (proven ROI delivery)

- **Risk-Free AI Investment:** Economics background ensures every AI initiative is validated through rigorous cost-benefit analysis before implementation
- Translation Advantage: Converts complex AI outputs into executive-ready insights that drive strategic decisions and secure stakeholder buy-in
- **Scalable Impact:** Builds solutions designed for enterprise adoption, proven track record of pilot-to-nationwide scaling
- End-to-End Expertise: From problem identification through solution deployment and change management
- **Industry Agnostic:** Experience across logistics, education, and technology sectors with rapid adaptation capability
- Global Perspective and Mindset: Multi-continental background enabling effective collaboration in diverse, distributed teams and brings cultural fluency and adaptability essential for modern AI consulting environments.

CORE AI & TECHNICAL SKILLS AND COMPETENCIES

AI/ML Technologies and Technical Expertise

- Machine Learning & AI: Deep learning, computer vision, NLP, generative AI (GPT-4, Gemini), RAG systems
- Statistical Modeling: Causal inference, econometrics, experimental design, predictive analytics
- **Programming Languages & Platforms:** Python, R, SQL, Git version control, TensorFlow, scikit-learn, AWS Bedrock, OpenAI APIs
- Data Engineering: ETL pipelines, cloud architecture (AWS), real-time analytics dashboards
- Frameworks: TensorFlow, PyTorch, scikit-learn, Hugging Face
- Computer Vision: YOLOv12, OpenCV, image processing pipelines
- NLP & Generative AI: OpenAI GPT-4, Google Gemini, RAG systems, prompt engineering
- Cloud & MLOps: AWS Bedrock, Supabase, model deployment, CI/CD for ML
- Visualization: Tableau, Power BI, Streamlit, custom dashboard development
- Data Analytics: Advanced statistical modeling, causal inference, A/B testing
- Business Platforms: Salesforce, Excel (Advanced), CRM systems

Strategic & Consulting Skills

- AI Transformation: Strategic roadmap development, ROI modeling, stakeholder buy-in strategies
- Business Analysis: Market segmentation, pricing optimization, competitive intelligence
- Project Leadership: Cross-functional team management, vendor relations, executive reporting
- Risk & Ethics: AI governance frameworks, bias mitigation, regulatory compliance

AI & ANALYTICS PORTFOLIO

Plutus AI - Generative Price Intelligence Platform | Graduate Capstone Project | 2024-2025

Business Challenge: Developed AI-powered pricing engine for rare collectibles market serving underserved small businesses.

Technical Solution:

- Architected computer vision pipeline using YOLOv12 and OpenAI Vision APIs for automated item assessment
- Integrated LLMs (Gemini, GPT-4) with structured valuation models using RAG architecture
- Achieved 30% reduction in price hallucination through hybrid AI-econometric approach

Business Impact: Designed comprehensive SaaS pricing strategy and go-to-market plan informed by behavioral economics and SME interviews, targeting \$2M+ addressable market.

AI-Driven Customer Intelligence & Revenue Optimization | 2024

Business Challenge: Customer segmentation and persona-based product strategy for 50K+ customer dataset.

Technical Solution:

- Applied K-means and hierarchical clustering algorithms for customer segmentation
- Built predictive models for revenue optimization through targeted bundling strategies

Business Impact: Identified high-value segments with projected 15% revenue uplift; delivered self-service analytics training reducing campaign launch time by 25%.

Spatial Analytics & Computer Vision Platform | Arizona State University | 2024

Business Challenge: Campus foot-traffic optimization for vendor policy development.

Technical Solution:

- Processed 3,000+ video frames using YOLOv12 and OpenAI Vision APIs
- Generated actionable insights through heatmaps, dwell time analysis, and congestion metrics

Business Impact: Influenced university vendor policy through econometric insights; authored comprehensive AI ethics framework addressing data integrity and equity considerations.

PROFESSIONAL EXPERIENCE

Area Manager, Fulfillment Operations | Amazon | Goodyear, AZ | 07/2023 - 07/2024

Led AI-driven operational transformation across 3 shifts managing 100+ associates, delivering exceptional results through strategic analytics and technology implementation.

Key Achievements:

- \$1.8M+ Operational Impact: Deployed predictive analytics and real-time dashboards that improved productivity by 12% while maintaining 99.8% safety compliance
- **Decision Intelligence:** Built custom Streamlit dashboards reducing management decision cycles by 40%, now used across multiple fulfillment centers
- Advanced Analytics Application: Applied causal inference modeling for workforce optimization, reducing investigation backlogs by 35%
- Scaling & Knowledge Transfer: Led cross-functional collaboration with engineering, HR, and finance to scale pilot solutions nationwide, producing comprehensive SOPs for enterprise adoption
- **Team Development:** Mentored 3 team leads in data-driven continuous improvement, increasing internal promotion rates through analytical capability building

Career Services Coordinator & Operations Manager | Covenant College | Chattanooga, TN | 08/2019 - 12/2019

Pioneered data-driven career services transformation, applying analytics to optimize student-employer matching and engagement strategies.

Key Achievements:

- Strategic Platform Implementation: Redesigned workflows in Handshake CRM, expanding access to global opportunities and improving user experience
- **Data-Driven Optimization:** Analyzed engagement and placement data to enhance employer targeting, achieving 20% increase in successful student-employer matches
- Scalable Training Programs: Developed analytical frameworks for resume optimization and job search strategies, improving post-event placement rates
- Global Relationship Building: Leveraged cultural intelligence to establish partnerships with mission-aligned organizations worldwide

EDUCATION

- M.S. in Artificial Intelligence & Business (Distinction) | Arizona State University | 05/2025
 - o **Specialization:** Machine Learning Strategy, Causal Inference, and Strategic Impact Evaluation

- o **Academic Leadership:** Led multi-disciplinary AI projects focusing on market segmentation, behavioral clustering, and pricing optimization
- o Capstone Excellence: Developed price-estimation AI platform integrating computer vision and generative models for U.S. SMB market
- o **Advanced Coursework:** AI for Business Strategy, Experimental Design, Unstructured Data Analytics, AI Governance & Ethics
- B.S. Economics | Arizona State University | Tempe, AZ | 12/2022
 - o Specialization: Econometrics, Industrial Organization, and Quantitative Policy Modeling
 - o **Academic Honors:** Economics Honor Society Member, 4-semester Data & Econometrics Tutor
 - o Honors Thesis: Causal Impact of Paradigm Shifts in Global Poverty Eradication
 - o **Foundation Coursework:** Microeconomic Theory, Statistics for Economists, Policy Analysis, Game Theory

CERTIFICATIONS & CONTINUOUS LEARNING

- AWS Certified Solutions Architect (In Progress)
- Google Cloud Professional ML Engineer (Planned 2025)
- Active participation in AI ethics and governance working groups

References and detailed project portfolio available upon request