PhD Financial Engineer and AI strategist with 20+ years solving complex problems for Fortune 500 companies, startup teams, and growing businesses. My PhD foundation in optimization and mathematical modeling enables me to innovate systematically across disciplines, empowering me to transform complex business challenges into tangible and desirable results. Expert translator between C-suite executives, technical teams, operations, strategy, and data science functions. Currently developing AI-enhanced platforms and providing specialized expertise to improve models for top-tier AI labs.

Staff management, global team building

- Strategic planning, new product development Predictive analytics, behavioral targeting
- Financial modeling, business intelligence
- Machine learning, generative AI, e-commerce

KEY SKILLS

- Optimization modeling, algorithm development, automation
- Consulting, strategy implementation, performance tracking
- Governance, credit analysis, forecasting, risk management
- Insight generation, customer journey analysis, logistics, P&L
- Matrix organizations, startup settings, global team structure

SUMMARY OF ACHIEVEMENTS

AI TUTOR & HUMAN DATA EXPERT - INDEPENDENT CONTRACTOR (REMOTE)

2025

- MERCOR: Pioneered finance and data science enhancements of AI models at top-tier research labs
- MICRO1: Pioneered business consulting enhancements of AI models at top-tier research labs

STRATEGIC CONSULTANT, AND TECHNICAL ANALYST - SELF EMPLOYED (REMOTE)

2024-2025

- Boosted productivity (>35%) for personal workflows and client operations, via strategic AI Integrations solutions
- Coached clients to achieve >50% trading portfolio ROI in 2-3 months through expert technical analyses

ASSOCIATE DIRECTOR, PREDICTIVE ANALYTICS - FINANCIAL PLANNING AND ANALYTICS SERVICES

VERIZON - CORPORATE FINANCE, NEW YORK, NY, USA (IN-PERSON / HYBRID / REMOTE)

2022-2024

Spearheaded enterprise-scale operational workflows and cross-functional analytics projects, directing teams to implement systematic business methodologies that increased profitability (>15%) across multiple wireless segments

Sample Projects & Recognitions

- Delivered \$1B+ business impact through systematic operational improvements: Credit Policy Optimization (\$800M+ revenue); Digital Journey process redesign (\$200M+ revenue); Customer lifecycle workflow management; Device payment cash flow analysis; multi-channel profitability optimization
- Recognized with Verizon Credo Award for exceptional optimization performance, Top performer on FP&A team

SENIOR MANAGER, PREDICTIVE ANALYTICS - BUSINESS ANALYTICS CENTER OF EXCELLENCE

VERIZON - CORPORATE FINANCE, NEW YORK, NY, USA (IN-PERSON / HYBRID / REMOTE)

2018-2022

PRINCIPAL - INVESTMENT VALUATION AND OPTIMIZATION

VERIZON – CORPORATE FINANCE, NEW YORK, NY, USA (IN-PERSON / HYBRID)

2016-2018

Assistant Vice President, Strategic Analytics

BARCLAYS - BARCLAYCARD EUROPE, NEW YORK, NY, USA (IN-PERSON / HYBRID / REMOTE)

2014-2016

- **Designed** innovative products, services, and marketing outreach activities and implemented operational frameworks
- Increased the size (20%) and profitability (15%) of growing Barclays' German loan portfolio, while minimizing risk
- **Built** behavioral and credit analysis systems that enhanced enterprise risk management workflows
- Led teams across India, Germany, and UK, ensuring cohesive strategic and consistent operational execution

LEAD ANALYST, CREDIT RISK

BARCLAYS - BARCLAYCARD EUROPE, NEW YORK, NY, USA (IN-PERSON / HYBRID)

2011-2014

GRADUATE STUDENT INSTRUCTOR

University of Michigan, Ann Arbor, MI, USA (In-Person)

2006-2009

- Corporate Finance IOE 452: course on corporate finance, for actuarial and engineering students
- <u>Derivative Instruments IOE 453</u>: course on options, futures, and other derivative instruments, for engineering students

GRADUATE STUDENT FELLOW AND RESEARCHER

University of Michigan, Ann Arbor, MI, USA (Hybrid / Remote)

2003-2010

- Specialized in operational optimization, systematic process design, and multi-stakeholder coordination frameworks
- Developed algorithms and optimal policies for complex finance/operations problems, across many economic settings
- Researched electronic transaction infrastructure and cross-functional operational systems
- Published operational decision-making frameworks and systematic optimization methodologies

BUSINESS ANALYTICS MANAGER

AMERICAN EXPRESS (AMEX) – RISK INFORMATION BANKING (RIB), NEW YORK, NY, USA (IN-PERSON) SUMMER 2004

• **Developed** a SAS-based segmentation tool that clustered client portfolios by spend segments, improved predictive accuracy by **20%** and streamlined strategic planning for Marketing, Technology, Finance, and Operations

ERGONOMICS CONSULTANT

ALCOA – HOWMET CASTINGS, LA PORTE, IN, USA (IN-PERSON)

SUMMER 2002

- Inspected work process and workflow, and conducted comprehensive surveys and interviews with 80+ employees
- Uncovered actionable insights that improved operational efficiency by 15% and reduced risk of injury by ~25%

CONSTRUCTION CONSULTANT

DACK CONSULTING SOLUTIONS, INC. - WHITE PLAINS, NY, USA (IN-PERSON)

SUMMER 2001

• Inspected work sites, conducted economics analyses, increased effectiveness of marketing campaigns by ~20%

EDUCATION

University of Michigan, Ann Arbor, MI, USA #2 graduate program (USA)

PhD, <u>Industrial and Operations Engineering</u>

2003-2010

- Focus: Interface between Finance and Operations Management

MSE, <u>Industrial and Operations Engineering</u>

2003-2005

- Focus: Business Operations Engineering, Financial Engineering, and Operations Research

PURDUE UNIVERSITY, WEST LAFAYETTE, IN, USA #2 undergraduate program (USA)

• **BS**, Industrial Engineering, Honors program, 790/800 on GRE exam (Quantitative section)

1999-2003

GRADUATE LEVEL COURSEWORK

- Corporate Finance, Derivative Instruments, Financial Engineering, Portfolio Risk Analysis, Stochastic Processes
- E-Commerce, Game Theory, Microeconomic Theory, Law and Information Management, Research Seminars
- Inventory Analysis & Control, Leveraging IT into Business Strategy, Supply Chain Management
- Advanced Calculus, Continuous Optimization, Dynamic Programming, Linear Programming, Systems Simulation

LANGUAGES AND COMPUTER SKILLS

- Languages: English, French, French Creole, Spanish (advanced), Russian (beginner)
- Programming Expertise: Python, SQL, SAS, Mathematica, Matlab, C, Unix
- Data Visualization & Platforms: Automod, Tableau, ThoughtSpot, LaTex, Google Workspace, MS Office Suite
- Modern Tech: Generative AI/LLMs, Vibe Coding, Prompt Engineering, Advanced Analytics, Machine Learning

ADDITIONAL

- Selected Publications: <u>Trade Credit as an Option to Acquire Future Financing</u> (2017); <u>Risk, Financing and the Optimal Number of Suppliers</u> (2011)
- Graduate Fellowships (e.g., Rackham Merit Fellowship, STIET/NSF Doctoral Fellowship), 2003–2010
- Doctoral Dissertation Award in Optimization First prize, University of Florida, 2007
- Engineering in Training License (# ET30302738), State of Indiana, 2003
- Certifications: ThoughtSpot Professional, Generative AI (Udemy), Python & Machine Learning Bootcamp (GA)
- Member of Alfred P. Sloan Foundation, Alpha Pi Mu, Tau Beta Pi, Golden Key International Honour Society
- Interest: healthy living, languages, music, nature, self-improvement, sports, travel, technology, world politics
- References upon request: Rangan Gangavaram, Kenneth (Ru) Yuan, Shyam Kumar Kewalia, Sivananda Nittala