



A curious, persistent, and articulate finance executive, data scientist, and strategist, skilled in turning chaos into order, and coaxing insights from noise. Inspired to solve “big” problems that improve life for many people ... their health, happiness, wallets, and environment.

TECHNICAL PROFICIENCY: Python, Pandas, Scikit Learn, Numpy, Scipy, PostgreSQL, Supervised- and Unsupervised Machine Learning, Natural Language Processing, PCA/ SVD, Keras, Neural Networks, Bayesian inference, Web scraping, AWS, Docker, GitHub, Apache Spark/ DataBricks/ Scala, clustering methods (k-means, DB scan, LDA), Data Visualization (GGplot, Tableau, Matplotlib), GitHub, ETL

FUNCTIONAL EXPERTISE: Operational finance leadership, strategy, Board & investor communications, quantitative analysis, M&A, FP&A, recruiting & team building

DOMAIN EXPERTISE: Electric utilities and smart-grid management, cloud computing, renewable energy, block-chain/ distributed ledger technology

RELEVANT EXPERIENCE

CAMBRIAN.AI Berkeley, CA

Finance Director & Head of Data Science, Sept. 2019 – Present

Seed stage company to employ ML and bots to protect user data ownership and privacy. NLP project submitted for NSF grant for a bi-RNN to classify (unsupervised) legal clauses in any online privacy policy, and to classify (supervised learning) each clause by impact on user data privacy. Written several claims (as they pertain to data science) of provisional patent filing.

GREENSPARC INC San Francisco, CA

CFO & Data Scientist, Apr 2014 – Present

ETL, data cleaning and PostgreSQL dbase construction; time-series ML & neural net modeling (ARIMA, SARIMAX, RNN) to deliver nation-wide, real-time energy markets data for operators of data center fleets. Back-tests show that our data science-based algorithm can deliver 20%+ annual energy cost savings while simultaneously increasing renewable energy consumption by 10% or more.

INDEPENDENT PROJECTS San Francisco, CA

Staff Contributing Writer, *Medium.com* “Better Programming”, June 2019 - Present

- California Energy Price Fetching Utility ... *PysimpleGui, Pandas, APIs, Python*
- Ames Iowa Real Estate Price Inference ... *Python, Pandas, Scikit Learn, Statsmodel*
- Subreddit Classification (Science fiction vs. Physics & Astronomy) ... *Scikit Learn*
- FEMA Early Disaster Condition Monitoring & Alerting ... *AWS plus full stack above*
- Calif. Electricity Price Prediction w/ Recurrent Neural Nets ... *full stack above + Keras RNN*

POWERCHOICE INC / GREENSPARC ENERGY ADVISORS San Francisco, CA

Co-founding Partner & Quantitative Modeler, 2009 - 2014

Energy program consultancy that won and negotiated city of SF PUC’s municipal energy program (CCA) to replace PG&E in SF... 20-yr, \$8 billion plan. Modeled the complete city’s electricity tariff (pricing) structure for all residential and commercial customers, including rolling price forecast.

manu kalia

CROWNBUTTE WIND POWER INC (now NACEL ENERGY) CFO & Quantitative Analyst, 2007 – 2008 Built wind energy development models (based on tower anemometer data) for 600MW spread across 12 projects in Western ND and Eastern MT. Negotiated PPA with local utility MDU. Raised private capital, then wrote & issued S-1 SEC registration statement to list Crownbutte on OTC market. Merged with Nacel Energy Corp.	Bismarck, ND
ARC INTERNATIONAL (now SYNOPSIS) FP&A Director & Interim CFO, 2002 – 2006 Quant. models ownership for all G&A functions ... finance, M&A, investor relations, IT & HR. Includes models for: budgets, rev forecasts, variances, pricing, M&A, tax, xfer pricing, audit, & comp plans.	San Jose, CA
TRADEWORX INC CFO & Lead Business Analyst, 2001 – 2002 Quant analytics and web-based proprietary trading tools for individuals. Secured CNBC and the US SEC as customers. Transitioned to a proprietary quant ELSA hedge fund and high-frequency trader.	New York, NY
COMMONWEALTH ASSOCIATES Networking & Telecom Deal Team Lead, 1999-2001 Evaluated over 2,000 small-cap/ micro-cap tech companies for possible PIPE investments. Screened down to two dozen due diligence candidates. Completed 6 deals for ~\$100 million in financing.	New York, NY
SANFORD C. BERNSTEIN & CO (now ALLIANCE CAPITAL) Telecom Equip & Data Networking Equip Analyst, 1998 – 1999 Created market, revenue, and earnings models for publicly traded companies: Lucent, Cisco, Ascend, Bay Networks, Nortel, US Robotics/ 3Com, Alcatel, Ciena.	New York, NY
BELL LABORATORIES (AT&T → LUCENT TECHNOLOGIES) Quantitative Models Planning Manager, 1995 – 1998 Scenarios-based planning leader for \$5 billion+ project to extend bi-directional optical-fiber networks. Company wide leadership on implementation of Monitor Consulting's <i>scenario-based planning</i> discipline.	Murray Hill, NJ

EDUCATION

TUCK SCHOOL OF BUSINESS ADMINISTRATION AT DARTMOUTH COLLEGE MBA, General Management ... 1995	Hanover, NH
DARTMOUTH COLLEGE A. B. cum laude, Engineering Sciences ... 1993	Hanover, NH
GENERAL ASSEMBLY Data Science Immersive Program, Spring 2019	San Francisco, CA