A curious, persistent, and articulate data-scientist & entrepreneur skilled in turning chaos into order, and coaxing insights from white noise through data science. 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), Visualization (GGplot, Tableau, Matplotlib), GitHub

FUNCTIONAL EXPERTISE: Board and investor communications, quantitative analysis, M&A, FP&A,

recruiting and team building

DOMAIN EXPERTISE: Electric utilities and smart-grid management, cloud computing, renewable

energy, block-chain & distributed ledger technology

RELEVANT EXPERIENCE

GENERAL ASSEMBLY San Francisco, CA

Data Science Immersive, Spring 2019

Project-based immersion program to gain professional-level skills in the entire data science workflow: data acquisition, data cleaning & EDA, modeling and statistical analysis, database management (cloud-based), visualization, and presentation.

Projects: Ames Iowa Real Estate Price Inference

Subreddit Classification (Science fiction vs. Physics & Astronomy)

FEMA Early Disaster Condition Monitoring & Alerting

California Electricity Price Prediction Using Recurrent Neural Nets

GREENSPARC INC San Francisco, CA

Lead Data Scientist & Co-founder, Apr 2014 – Present

ETL and dbase construction, time-series modeling for delivering nation-wide, real-time energy markets data for operators of data center fleets. Back-tests show that the data science-based algorithm can deliver 20%+ annual energy cost savings while <u>simultaneously</u> increasing renewable energy consumption by 10% or more. This is a big global issue: 7% of the world's electricity is consumed in data centers, and growing at 20%+ annually.

POWERCHOICE INC / GREENSPARC ENERGY ADVISORS

San Francisco, CA

Co-founding Partner & Data Scientist, 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. Designed and bid on multiple CCA and Port Authority RFPs.

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CROWNBUTTE WIND POWER INC

Bismarck, ND

Data Scientist & CFO, 2007 – 2008

Built wind energy development models 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.

ARC INTERNATIONAL (VIRAGE LOGIC)

San Jose, CA

FP&A Director & Interim CFO, 2002 – 2006

Semiconductor IP licensor of microprocessor designs, used by leading chip designers from Intel to SanDisk to Motorola/Freescale for over 1/3 of the world's ASICs and FPGAs. Complete G&A (finance/HR/IT/investor relations) and quantitative business modeling leadership for this public LSE-listed company, including budgets/forecasts, pricing, M&A, comp plans.

TRADEWORX INC New York, NY

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.

COMMONWEALTH ASSOCIATES

New York, NY

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.

SANFORD C. BERNSTEIN & CO (ALLIANCE CAPITAL)

New York, NY

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.

BELL LABORATORIES (AT&T → LUCENT TECHNOLOGIES)

Murray Hill, NJ

Quantitative Models Planning Manager, 1995 – 1998

Scenarios-based planning leader for \$5 billion+ project to extend bi-directional optical-fiber networks to the home. Led cross-functional executive team through a futurist scenario construction, and fit a flexible strategy to extend fiber-to-the-neighborhood, and then on to the home-endpoint over time.

EDUCATION

GENERAL ASSEMBLY San Francisco, CA

Data Science Immersive Program, Spring 2019

TUCK SCHOOL OF BUSINESS ADMINISTRATION AT DARTMOUTH COLLEGE

MBA, General Management ... 1995

Hanover, NH

DARTMOUTH COLLEGE Hanover, NH

A. B. cum laude, Engineering Sciences ... 1993