Kenneth Nicholaus

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Summary

Immersed in AI products, projects, data science and consulting since 2014. Founded 2 startups and sold them after developing products. Angel Investor from 2007 until 2013.

Owned an Enterprise Consulting business, implementing and selling enterprise planning and business intelligence products from partners, from 2005 to 2014

Worked for IBM, JP Morgan Chase, and Unilever in progressive roles prior to 2005.

Successfully, improved performance for 30 Fortune 500 companies

Managed, worked with and developed top AI talents and teams.

Currently managing and helping enterprise clients to incorporate generative AI.

Engineering degree and MBA.

Get up at 3 am every day to keep up with all the latest skills and projects for AI and Cloud. 250 professional and other skill certifications and badges.

Interests include sprinting, meditation, and water fasting.

Experience

Technology Skills

SKILLS ACQUIRED

Jan 2004 - Present (20 years 5 months)

All ML frameworks, LLMs, Generative AI, AI Research, Traditional ML, Deep Learning, MLOps, Cloud Computing, DevOps, Cloud Architect, Cloud engineer, Machine Learning Engineer, Database Engineer, Data Engineer, Data Scientist, Cloud Application Developer, Security Engineer, Project Management, Team Management, AI Strategy, AI Explanations & Evaluations, Responsible AI, Ethical AI strategies, legal, compliance, and risk management, Training AI Skills, big data, Data Warehouse, Data Strategy, Data Privacy, Digital Transformations, Microservices, Distributed computing, Migrations, Multi/hybrid Cloud. Built an E-Commerce app and an AI app,

Regressions, classifications, clustering, anomaly/outlier/fraud/threat detection, chat bots, question/answering.

Generative AI, Open/Closed LLMs, Prompt Engg, LangChain, Advance RAG, RLHF, Vector Search, Sentiment Analysis, NER, Text Classification, summarization, labeling etc., Gensim, Spacy, BERT, Chatbots, NLTK, Embeddings, NMT, Transformers, hugging face models.

TensorFlow, TFX, Kube Flow pipelines, CUDA, Tensorflow js, tf.data, Keras, Transfer Learning, Ensemble Learning, RNN, GRU, LSTM, self/multi head Attention, Adversarial Networks, Neural Machine Translations, CNN, Facial Recognition, Face/body similarity, Object detection, image captioning, segmentation, transitioning, style transfer, all types of GANs, all types of Reinforcement Learning for trading, complex custom transformers, vision transformers, Diffusion Models etc., AWS, Google Cloud, Azure, IBM Cloud, Spark, DataBricks, MongoDB, MySQL, Storage, BigQuery, BigTable, postgres, Alloydb. Hadoop, web-scraping, Apache beam, Apache Airflow, Composer. Matplotlib, ggplot, seaborn, plotly and DASH

Python, Pandas, Pytorch, Tensor Flow, Trax, OpenCV, SciPy, Numpy, Scikit-Learn, flask, django, HTML/CSS, Javascript, Scala, C##, Docker, Kubernetes, Linux.

Enterprise Planning, BI, Reporting and Analysis, IBM/Congos planning, reporting, TM1. Anaplan, looker, Tableau and others

Certifications of Tech/Other

SKILLS ACQUIRED

Jan 2004 - Present (20 years 5 months)

AI / ML SPECIALIZATIONS/PROFESSIONAL CERTIFICATIONS:

- 1. Tensorflow: Advanced Techniques Spec DeepLearning.Al
- 2. Tensorflow: Data & Deployment Spec DeepLearning.Al
- 3. Natural Language Processing Spec DeepLearning.Al
- 4. Practical Data Science on the AWS Cloud Spec. AWS, DeepLearning.Al
- 5. Al Tensorflow Developer Professional Certificate DeepLearning.Al
- 6. Al for Medicine Spec DeepLearning.Al
- 7. ML Spec Google Cloud
- 8. Advanced ML Spec Google Cloud
- 9. Generative Adversarial Networks spec DeepLearning.Al
- 10. Python, Bash and SQL Essentials for Data Engineering Spec Duke U.
- 11. ML Engineering for Production (MLOps) Spec DeepLearning.Al
- 12. Building Cloud Computing Solutions at Scale Spec Duke U
- 13. Applied Data Science with Python Spec U of Michigan
- 14. ML for Trading Spec New York Institute of Finance
- 15. Practical Trading Spec Interactive Brokers
- 16. ML and Reinforcement Learning in Finance Spec NYU
- 17. Investment Management with Python and ML Spec EDHEC Business school
- 18. MongoDB(5 cert) MongoDB U.
- 19. SQL for Data Science U of California
- 20. Google Cloud Certified Cloud Digital Leader
- 21. Google Cloud Certified Associate Cloud Engineer
- 22. Google Cloud Certified Professional Cloud Security Engineer
- 23. Google Cloud Certified Professional Cloud Architect
- 24. Google Cloud Certified Professional Cloud DevOps Engineer
- 25. Google Cloud Certified Professional Cloud Developer
- 26. Google Cloud Certified Professional Cloud Database Engineer
- 27. Google Cloud Certified Professional Data Engineer
- 28. Google Cloud Certified Professional Machine Learning Engineer
- 29. Al in Healthcare Stanford
- 30. Business Analytics Harvard Business School
- 31. Reinforcement Learning U of Alberta
- 32. Google Skill Boost Cloud badges, Other projects Coursera, BI and Planning Certificates of IBM/ Cognos

Consulting Skills

SKILLS ACQUIRED

2004 - Present (20 years)

At ease working with various stakeholders to manage change. Worked alongside McKinsey & Co., Boston Consulting Group, AT. Kearney, PriceWaterhouse Consulting, IBM Consulting, Oliver Wyman

and Tandon Capital at various capacities. Consulted for 30 of the Fortune 500 companies to improve performance.

Leadership Skills

SKILLS ACQUIRED

2004 - Present (20 years)

Led companies as a Founder and CEO. Managed clients and employees for desired results. Sold and implemented Al/Bl/enterprise planning products/services to Fortune 500 companies. Founded an E-commerce private marketplace and managed various constituents. Worked as a manager/lead consultant and led various endeavors for JP Morgan Chase, IBM and Unilever. Managed factory operations for Unilever plc with 126 employees and 7 supervisors to meet production targets.

Al Developer/Engineer/Architect to Al Manager/Executive SUBMIT AI INC.

Jul 2014 - Present (9 years 11 months)

- Developed over 1000 models for diverse clients (banks, insurance, manufacturing, utilities, cellphone, multi-trillion asset manager, staffing, retail, startups, etc.,) utilizing various frameworks and Operationalizing ML by setting up end to end MIOps.
- Specialized in transformer-derived variations since 2018. Lately working on Generative AI from 2023.
- Designed models for various applications, for example quality control, loan default prediction, inventory control, risk mitigation, employee retention, threat identification, face recognition, object detection, object segmentation, and image captioning.
- Led the creation of a proprietary Al-focused app for profitable equity trading.
- Developed facial recognition for a top cell phone company in 2017.
- Developed a comprehensive suite of 200 intricate machine learning models for stock selection, buy/ sell/hold recommendations, sector analysis, earnings analysis, news analysis, macroeconomic analysis, and portfolio management in 2015.
- Created custom auto ML for selecting the best models, automated hyperparameter selections, and trained models to replicate stock selections of a renowned investor.
- Employed transfer learning and customized models with various combinations to enhance performance.
- Built complex models with multiple input streams leading to various customized outcomes.
- Identified impactful AI/ML projects for clients, successfully executing hundreds of projects.
- · Pioneered the introduction of machine learning at a multi-trillion asset manager in 2018,
- Managed a team of data scientists, ML engineers, and lead managers, ensuring client satisfaction. Mentored Phd ML researchers and software development teams.
- Worked on foundational transformer-derived technologies, language, diffusion and generative models, RLHF, vision AI, LLM, LangChain, Advance RAG, Vector Search, and prompt engineering,
- Developed AI chatbots in 2017 for a bank
- Up-to-date on AI, 250 + certifications in related fields

Founder, President & CEO

ZipJOINT, Inc. Private Marketplace Jan 2016 - May 2018 (2 years 5 months) Closed on May 6, 2018 Built an ecommerce social media website from scratch. Sell, Rent or buy new/used/underused stuff or skills. Open your free private JOINT to earn, save & help. Use our dedicated, transaction oriented, easy to use social media platform and be productive. Do business locally or globally in 25 currencies.

President & CEO

YAWA Corp

Jul 2005 - Aug 2015 (10 years 2 months)

Recruited & managed 20 consultants. Sold services and performed presales and business development activities. Partnered with IBM to develop, customize and implement IBM and Cognos Enterprise Planning and Reporting products. Developed and Implemented real time Enterprise planning and Business Intelligence systems to forecast and report Sales, P&L, Balance Sheet, Cash Flow, detail expense of all categories, Capital Expenditure, Detail revenue items, employee expenses, metrics etc., for mid-range to large companies from various categories. Companies such as Nordstrom, AIG, Centene Corporation, Aetna, Diageo, Abbott, Takeda Pharmaceuticals, Cabrini Medical, Wright Medical, Spring Industries, Yahoo, DST Systems, DST Output, Woods hole Oceanographic Institution, Geophysical Society, JP Morgan Chase, Manpower etc.,

Consultant>>Sr. Consultant/Project Mgr>>Principal Consultant

IBM Previously Cognos and Adaytum

1999 - 2005 (6 years)

Designed and developed multi-dimensional models for various mid to large businesses to capture. calculate and report real time various data for budgeting, forecasting and decision making. Worked with a pre-sales team to develop business model prototypes for proof of concept for various companies. Reviewed and redesigned models for clients who had a business model change. Re-evaluated and reengineered budgeting and forecasting process for efficiency and productivity. Contributed to product improvement through constant dialogue with R&D. Enabled internet startups like Quid Nunc Pros to reevaluate their business model. Designed and captured relevant drivers to accurately portray business models for Corinthian colleges. Helped Deltek Inc., to incorporate their product into Analyst, Contributor of Adaytum, Inc. Evaluated and redesigned models for Novartis for efficiency. Designed and implemented rolling forecasting models and reporting in multi-currency for global PriceWaterhouse Consulting business. Implemented financial systems to forecast and report P&L, Balance Sheet, Cash Flow, detail expense of all categories, Capital Expenditure, Detail revenue items, employee expenses, metrics, capital plan, funding requirements, bond issue for Wisconsin Public Services now part of Integrys Energy Group. A utility company based in the Midwest. Worked on redesign of Merck forecasting systems. Implemented and improved business models for Pfizer. Developed and designed business models for TAP Pharmaceuticals. Helped to implement Johnson and Johnson forecasting systems. Designed models for Peoples Gas, TECO, a utility company from Tampa, Florida. Designed forecasting Models for Atlas Air, an air cargo company from New York. Designed Daimler Trucks of North America's financial planning system.



Analyst>>Controller>>Asst. Vice President

JPMorgan Chase & Co.

1994 - 1998 (4 years)

Worked with McKinsey & Co on a five year strategic plan to improve business performance. Worked with Boston Consulting group to value various business units and developed strategies to improve shareholder value. Worked with AT Kearney on Strategic sourcing projects to reduce expenses across the bank. Worked with Tandon capital to reorganize and refocus Chase Manhattan Bank. Worked on

various projects to improve business performance across various business unit. Developed and refined risk capital process. Responsible for budgeting, reporting and planning for various units. Worked on merger projects with Chemical Bank. Controller of the small business segment.

Education

Harvard Business School Online

Business Analytics Certificate

Stanford University

Al in Healthcare

New York University

Machine Learning and Reinforcement Learning in Finance

Duke University

Building Cloud Computing Solutions at Scale

Duke University

Python, Bash and SQL Essentials for Data Engineering

S University of Rochester - Simon Business School

Master of Business Administration - MBA

EDHEC Business School

Investment Management with Python and Machine Learning

New York Institute of Finance

Machine Learning for Trading

University of Alberta

Reinforcement Learning

University of California, Davis

SQL for Data Science

Licenses & Certifications

Introduction to Portfolio Construction and Analysis with Python - EDHEC-Risk Climate Impact Institute

Advanced Portfolio Construction and Analysis with Python - EDHEC Business School

Coursera CHDN3G3EHJGA

Python and Machine Learning for Asset Management - EDHEC-Risk Climate Impact Institute

Coursera BS9EU2DWKYA2

- Python and Machine Learning for Asset Management with Alternative Data Sets
 - EDHEC-Risk Climate Impact Institute

Coursera A69P7TKR3JL9

- Investment Management with Python and Machine Learning Specialization EDHEC-Risk Climate Impact Institute

 Coursera 2GRL9DVRRE8N
- Introduction to Trading, Machine Learning & GCP New York Institute of Finance Coursera 226LDC5E9269
- Using Machine Learning in Trading and Finance New York Institute of Finance Coursera VWRKTANCS35E
- Reinforcement Learning for Trading Strategies New York Institute of Finance Coursera 4VAJ3WARL9KK
- Machine Learning for Trading Specialization New York Institute of Finance Coursera L5FPRQ4APZNF
- Fundamentals of Equities Interactive Brokers
 Coursera NCPJBP4CPF8M
- Forex Trading Around the World Interactive Brokers
 Coursera E74NPAYJ9LSL
- **U .S. Bond Investing Basics** Interactive Brokers Coursera E22YCR2UQ3V7
- **Derivatives Options & Futures** Interactive Brokers

Coursera HJHUHHUSZDZX

- Practical Guide to Trading Specialization Interactive Brokers
 Coursera KDGF4PWJAGXC
- SQL for Data Science University of California, Davis
 Coursera Y29JBT5MCJED
- MongoDB M320 Data Modeling MongoDB University b4bff280-f5d6-4c82-a0bb-505c73a495a5
- MongoDB M121 Aggregation Framework MongoDB University 067a19a7-6500-4702-9202-a5ad4853cd9c
- MongoDB M201 MongoDB Performance MongoDB University 4f147be2-68ff-4443-adb3-22ee7d2e42d9
- MongoDB A300 Atlas Security MongoDB University bb144f3d-c586-494c-ba70-4e75c5fef581
- MongoDB M001 MongoDB Basics MongoDB University e5417dd2-2d62-43bc-8124-2e0187fd5e4f
- Measuring Stock Liquidity Coursera coursera./4BKW7H8AFA4C
- Discounted Cash Flow Modeling Coursera coursera/4NEZRGYCRHPF
- Creating Multi Task Models With Keras Coursera coursera./7BUVX8C5FH3A
- Fine Tune BERT for Text Classification with TensorFlow Coursera coursera/45BL8MSU6SLG
- Visualizing Filters of a CNN using TensorFlow Coursera coursera/85B89WSD9LJ3
- Compare Stock Returns with Google Sheets Coursera coursera/NSQ2QMYABNS6

- Deep Learning with PyTorch : Neural Style Transfer Coursera coursera/PGK56KJA6N4E
- Analyzing Company Performance using Ratios Coursera coursera.org/XBZGKXMPDKG3
- Introduction to Valuation with WACC Coursera coursera/ZDQMR8TQ6X5C
- AWS S3 Basics Coursera coursera/ZPVUXYQBVTSP
- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning - DeepLearning.Al coursera.org/J44PP3W5Z5UN
- Convolutional Neural Networks in TensorFlow DeepLearning.Al coursera/Q47NPDZCH8NE
- Natural Language Processing in TensorFlow DeepLearning.Al coursera/WPUTXWDSSQD4
- Sequences, Time Series and Prediction DeepLearning.Al coursera/RDY6GDCSJEWP
- TensorFlow Developer Professional Certificate DeepLearning.Al coursera/professional-cert/KKC7DE48G4R6
- Practical Data Science on the AWS Cloud Specialization Amazon Web Services (AWS)

coursera/TQP25FNEG8RT

Analyze Datasets and Train ML Models using AutoML - Amazon Web Services (AWS)

coursera/Y2C79ACBD7CR

- Build, Train, and Deploy ML Pipelines using BERT Amazon Web Services (AWS) coursera/DTZWWAVLSRTX
- Optimize ML Models and Deploy Human- in- the- Loop Pipelines Amazon Web Services (AWS)

- Al for Medicine Specialization DeepLearning.Al coursera/EJR7S6RJAF4B
- Al for Medical Diagnosis DeepLearning.Al coursera/V92QMS56AH4L
- Al for Medical Prognosis DeepLearning.Al coursera/2HQ78LGWE74S
- Al For Medical Treatment DeepLearning.Al coursera/PL69RSUGU9EQ
- Natural Language Processing Specialization DeepLearning.Al coursera/KPCD2VRW7H2R
- Natural Language Processing with Classification and Vector Spaces -DeepLearning.Al coursera/4V7RYQ9KVLRZ
- Natural Language Processing with Probabilistic Models DeepLearning.Al coursera/45SL7WB4R6DB
- Natural Language Processing with Sequence Models DeepLearning.Al coursera/7ASAQR5VZJH9
- Natural Language Processing with Attention Models DeepLearning.Al coursera/E5LTP6UKBKME
- Generative Adversarial Networks (GANs) Specialization DeepLearning.Al coursera.org/KK2V9V35Y5RF
- Build Basic Generative Adversarial Networks (GANs) DeepLearning.Al coursera/HZVF77MZAMRU
- Build Better Generative Adversarial Networks (GANs) DeepLearning.Al coursera/8PGHU7E66FRQ
- Apply Generative Adversarial Networks (GANs) DeepLearning.Al

- TensorFlow: Advanced Techniques Specialization DeepLearning.Al coursera/FBVBZEJQHKDZ
- Custom Models, Layers, and Loss Functions with TensorFlow DeepLearning.Al coursera/7TNA89PFYPJW
- Custom and Distributed Training with TensorFlow DeepLearning.Al coursera/N8RELMEZTCHH
- Advanced Computer Vision with TensorFlow DeepLearning.Al coursera/EX5XEC5AEWCH
- Generative Deep Learning with TensorFlow DeepLearning.Al coursera/PWY7TPQMHH5C
- TensorFlow: Data and Deployment Specialization DeepLearning.Al coursera/GAWG7FZ7BTKB
- Browser- based Models with TensorFlow.js DeepLearning.Al coursera/ZAUE9VPQ85VW
- Device- based Models with TensorFlow Lite DeepLearning.Al coursera/KZMEGCSXMTW8
- Data Pipelines with TensorFlow Data Services DeepLearning.Al coursera/CG9W9D7WXQYD
- Advanced Deployment Scenarios with TensorFlow DeepLearning.Al coursera/9HG9MAWPM68U
- **Building Cloud Computing Solutions at Scale Specialization** Duke University coursera/WX7QVJ323KSN
- Cloud Computing Foundations Duke University coursera/3LEF9HMZVBJS
- Cloud Virtualization, Containers and APIs Duke University coursera/UQ46KERS7M5E

- Cloud Data Engineering Duke University coursera/LGUNHA5FMXGM
- Cloud Machine Learning Engineering and MLOps Duke University coursera/EMWEEYFAGJYM
- Python, Bash and SQL Essentials for Data Engineering Specialization Duke University coursera/RJKPP27EZYZT
- Python and Pandas for Data Engineering Duke University coursera/HXB2TRRTC5D3
- Linux and Bash for Data Engineering Duke University coursera/RAVSASH7DQWT
- Scripting with Python and SQL for Data Engineering Duke University coursera/N3C4A9K45ZPD
- Web Applications and Command- Line Tools for Data Engineering Duke University coursera/9HJTPVZA46WD
- Machine Learning Engineering for Production (MLOps) Specialization -DeepLearning.Al coursera/AW4WTDAPQ7JV
- Introduction to Machine Learning in Production DeepLearning.Al coursera/A7GEHQJH668Q
- Machine Learning Data Lifecycle in Production DeepLearning.Al coursera/TT2JPK5ULYCE
- Machine Learning Modeling Pipelines in Production DeepLearning.Al coursera/J9KQ86367UXR
- Deploying Machine Learning Models in Production DeepLearning.Al coursera/2FGMWPPWHNZU
- **G** Machine Learning on Google Cloud Specialization Google

- G How Google does Machine Learning Google coursera/3GYZW9NSLZ45
- Caunching into Machine Learning Google coursera/7W64LQDH5ADX
- TensorFlow on Google Cloud Google coursera/GWP4M9M9KT3C
- **G** Feature Engineering Google coursera/32Q2J38572WT
- Machine Learning in the Enterprise Google coursera/WAGJN36DM5YS
- G Advanced Machine Learning on Google Cloud Specialization Google coursera/VVQYBUFWMZ6J
- End- to- End Machine Learning with TensorFlow on GCP Google coursera/AER3CTABTPEH
- G Production Machine Learning Systems Google coursera/AUDL2NNP4G58
- Computer Vision Fundamentals with Google Cloud Google coursera/G6NQG9Q3GHKX
- Sequence Models for Time Series and Natural Language Processing Google coursera/QFV29AEW76VA
- **G** Recommendation Systems with TensorFlow on GCP Google coursera/TW87QRPJXB98
- Google Cloud Big Data and Machine Learning Fundamentals Google coursera/EKGB7LUULWKJ
- Transfer Learning for NLP with TensorFlow Hub Coursera coursera.org/G5YSN3QAABDQ

- Guided Tour of Machine Learning in Finance New York University coursera.org/KYZDZ9H2QFCG
- Fundamentals of Machine Learning in Finance New York University coursera/WYVH499AYDZV
- A Complete Reinforcement Learning System (Capstone) University of Alberta coursera.org/45N7HQ3ZAHQL
- Sample- based Learning Methods Reinforcement Learning University of Alberta coursera.org/9AZCYCPX9JFA
- Prediction and Control with Function Approximation Reinforcement Learning University of Alberta coursera/EPGPAE5ELGS8
- Fundamentals of Reinforcement Learning University of Alberta coursera/8ACR75ZXFV5C
- Reinforcement Learning Specialization University of Alberta coursera/GA3MN2F42M56
- Overview of Advanced Methods of Reinforcement Learning in Finance New York University coursera/KXUDARC87PAL
- Reinforcement Learning in Finance New York University coursera/4XN9PN5WE3KY

Skills

Business Planning • Go-to-Market Strategy • Al Solutions • Trading Strategies • Contact Center Technology • RLHF • Prompt Engineering • Large Language Models (LLM) • RAG • Marketing