Kenneth Nicholaus

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Summary:

Immersed in AI products, projects, data science and consulting since 2014. Transitioned from business modeling to AI modeling to improve business performance and develop new products.

Professional engineering certification and experience in all aspects of Engineering for AI/ML.

Owned an Enterprise Consulting business, implementing enterprise planning and business intelligence solutions 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. Strong storytelling skills and the ability to generate insights and recommendations.

Worked on almost all types of AI projects, including data science. Managed, worked with and developed top AI talents and teams.

Currently managing and helping enterprise clients to incorporate generative AI.

Engineering degree and MBA.

Up to date on all latest skills and projects for AI and Cloud. 250 professional and other skill certifications.

Professional certification on all cloud engineering categories and AI

Interests include sprinting, meditation, and water fasting.

Objective:

Seeking a Applied Scientist, Artificial General Intelligence position to navigate the complexities of emerging AI technologies.

Skills Acquired:

Technology Skills

All ML frameworks, Transformer derived models, 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 architecture, Distributed computing , Migrations, Multi/hybrid Cloud, Enterprise Planning and Reporting products. Built an E-Commerce Private Marketplace and an app for AI based equity trading,

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 (language, chatbot), 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, pyLDAvis, t-SNE and DASH
Python, Pandas, Pytorch, Tensor Flow, Trax, OpenCV, SciPy, Numpy, Scikit-Learn, flask, django, other libraries for AI/ML,HTML/CSS, Javascript, Scala, C##, Docker, Kubernetes, Linux and others

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

Leadership Skills

Led companies as a Founder and CEO. Managed teams, clients and employees for desired results. Sold and implemented AI/BI/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.

Consulting Skills

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.

EXPERIENCE

AI Developer/Engineer/Architect to AI Manager/Executive. Jul 2014 - Present

- 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 models by setting up end to end MlOps.
- Specialized in transformer-derived variations since 2018. Lately working on Generative AI from 2023.
- Designed models for various applications, for example quality control, inventory control, risk mitigation, employee retention, threat identification, face recognition, object detection, object segmentation, default prediction, asset management and image captioning etc.
- Led the creation of a proprietary AI-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 for clients of varying sizes.
- Pioneered the introduction of machine learning at a multi-trillion asset manager in 2018,
- Guided startups in harnessing the power of AI and assisted manufacturing companies in implementing computer vision for quality maintenance in 2016.
- 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, RAG, Vector Search, and prompt engineering, transformer derived models etc.
- Developed AI chatbots in 2017 for a bank
- 200 + certifications in related fields
- Successfully passed almost all categories of Cloud professional certifications and DeepLearningAI certifications in the first attempt.

Founder, President & CEO, ZipJOINT, Inc. Private Marketplace, Jan 2016 - May 2018

Closed on May 6, 2018 E-Commerce site.

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 Corporation Jul 2005 - Aug 2015

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 to Sr. Consultant/Project Mgr to Principal Consultant(1999 to 2005)

IBM, Previously Cognos and Adaytum Inc.

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 to Controller to Asst. Vice President

JPMorgan Chase & Co (1994 to 1998)

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, 2019
University of Rochester - Simon Business School
Master of Business Administration – MBA, Honors, TA, Deans List
Malaviya National Institute of Technology
Bachelor of Science, Mechanical Engg. Honors

200 + Certifications of Tech/Other skills refer(linkedin.com/in/kenneth-nicholaus-3745b46)

Stanford University, AI 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
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
TensorFlow: Advanced Techniques Specialization DeepLearning.AI
TensorFlow: Data & Deployment Specialization DeepLearning.AI
Natural Language Processing Specialization DeepLearning.AI
Practical Data Science on the AWS Cloud Specialization, DeepLearning.AI
AI Tensorflow Developer Professional Certificate DeepLearning.AI
AI for Medicine Specialization DeepLearning.AI
ML Specialization Google Cloud
Advanced ML Specialization on Google Cloud
Generative Adversarial Networks Specialization DeepLearning.AI
ML Engineering for Production (MLOps) Specialization DeepLearning.AI
MongoDB (5 cert) MongoDB U.
Google Cloud Certified - **Cloud Digital Leader**
Google Cloud Certified - **Associate Cloud Engineer**
Google Cloud Certified - **Professional Cloud Security Engineer**
Google Cloud Certified - **Professional Cloud Architect**
Google Cloud Certified – **Professional Cloud DevOps Engineer**
Google Cloud Certified - **Professional Cloud Developer**
Google Cloud Certified - **Professional Cloud Database Engineer**
Google Cloud Certified – **Professional Data Engineer**
Google Cloud Certified – **Professional Machine Learning Engineer**
Google Skill Boost Cloud badges, Other Projects Coursera
Practical Trading Spec Interactive Brokers
Many certificates in Enterprise Planning and Reporting(from 1999)

Google Cloud Certified - Cloud Digital Leader (Expiration Oct 2025)
https://www.credential.net/ac7d7cf5-80b4-44f9-8352-e807266dcce7?key=b9f0d9c429cc5debbadf7a9a44777e330d6cb79c8602f6059092b394d8c18edd
Acquired:
10/2022

Google Cloud Certified - Associate Cloud Engineer (Expiration May 2026)
https://google.accredible.com/b0909039-d31e-4217-b842-f2d9821b53fc?key=e614117abd13bd757dde5f56618942ba98104e33399ea7ba5f4bb35f54bca6a6#gs.z8m8sq
Acquired:
5/2023

Google Cloud Certified - Professional Cloud Security Engineer (Expiration Oct 2025)
https://google.accredible.com/b2cea919-0f0b-48c9-abc1-12c95dda3b29
Acquired:
10/2023

Google Cloud Certified - Professional Cloud Architect (Expiration Nov-2025)
https://google.accredible.com/bf4bcafb-bc37-4842-b53f-58be86e5cedc
Acquired:
11/2023

Google Cloud Certified - Professional Cloud Developer (Expiration Dec-2025)
https://google.accredible.com/65f328bd-c6d9-486c-9b98-2e71ec7050e7
Acquired:
12/2023

Google Cloud Certified - Professional Cloud DevOps Engineer (Expiration Dec 2025)
https://google.accredible.com/d4768a44-5d90-4067-ae23-23a58087ca56
Acquired:
12/2023

Google Cloud Certified - Professional Cloud Database Engineer (Expiration Jan 2026)
https://google.accredible.com/8fd7ded5-fba2-4a38-94d2-d95c78941e21
Acquired:
1/2024

Google Cloud Certified - Professional Data Engineer (Expiration Feb - 2026)
https://google.accredible.com/2c599f62-6ebf-46a0-96ea-42b9de639430
Acquired:
2/2024

Google Cloud Certified - Professional Machine Learning (Expiration Mar-2026) Engineer

https://google.accredible.com/90bce918-c052-4145-8690-405514c706d5#gs.5svhr8

A Professional Machine Learning Engineer builds, evaluates, productionizes, and optimizes ML models by using Google Cloud technologies and knowledge of proven models and techniques. The ML Engineer handles large, complex datasets and creates repeatable, reusable code. The ML Engineer considers responsible AI and fairness throughout the ML model development process, and collaborates closely with other job roles to ensure long-term success of ML-based applications. The ML Engineer has strong programming skills and experience with data platforms and distributed data processing tools. The ML Engineer is proficient in the areas of model architecture, data and ML pipeline creation, and metrics interpretation. The ML Engineer is familiar with foundational concepts of MLOps, application development, infrastructure management, data engineering, and data governance. The ML Engineer makes ML accessible and enables teams across the organization. By training, retraining, deploying, scheduling, monitoring, and improving models, the ML Engineer designs and creates scalable, performant solutions.

Acquired:
3/2024

Business Analytics Certificate - Harvard Business School Online
Acquired:
3/2019

Investment Management with Python and Machine Learning Specialization - EDHEC Business School
https://coursera.org/verify/specialization/2GRL9DVRRE8N

Course Certificates Completed
1. Introduction to Portfolio Construction and Analysis with Python
2. Advanced Portfolio Construction and Analysis with Python
3. Python and Machine Learning for Asset Management.
4. Python and Machine-Learning for Asset Management with Alternative Data Sets

The Data Science and Machine Learning for Asset Management Specialization has been designed to deliver a broad and comprehensive introduction to modern methods in Investment Management, with a particular emphasis on the use of data science and machine learning techniques to improve investment decisions. By the end of this specialization, the student will have acquired the tools required for making sound investment decisions, with an emphasis not only on the foundational theory and underlying concepts, but also on practical applications and implementation with an emphasis on the hands-on implementation of those ideas in the Python programming language through a series of dedicated lab sessions.

Write custom Python code and use existing Python libraries to build and analyze efficient portfolio strategies. Learn the principles of supervised and unsupervised machine learning techniques to financial data sets. Write custom Python code and use existing Python libraries to estimate risk and return parameters, and build better diversified portfolios. Gain an understanding of advanced data analytics methodologies, and quantitative modelling applied to alternative data in investment decisions

Acquired:
7/2022

Advanced Machine Learning on Google Cloud Specialization - Google Cloud
https://coursera.org/verify/specialization/VVQYBUFWMZ6J

Course Certificates Completed
1. Computer Vision Fundamentals with Google Cloud
2. Sequence Models for Time Series and Natural Language Processing
3. End-to-End Machine Learning with TensorFlow on Google Cloud
4. Production Machine Learning Systems
5. Recommendation Systems with TensorFlow on GCP

This specialization focuses on advanced machine learning topics using Google Cloud Platform where you will get hands-on experience optimizing, deploying, and scaling production ML models of various types in hands-on labs. This specialization teaches you how to build scalable, accurate, and production-ready models for structured data, image data, time-series, and natural language text. It ends with a course on building recommendation systems.

Acquired:
6/2022

Building Cloud Computing Solutions at Scale Specialization - DUKE University

https://coursera.org/verify/specialization/WX7QVJ323KSN

Course Certificates Completed
1. Cloud Computing Foundations
2. Cloud Virtualization, Containers and APIs
3. Cloud Data Engineering
4. Cloud Machine Learning Engineering and MLOps

By completing this Specialization, you have developed the job-ready, pragmatic skills needed for careers that leverage Cloud-native technologies, including
(1) building websites involving serverless technology and virtual machines, using the best practices of DevOps;
(2) creating effective Microservices using technologies like Flask and Kubernetes that are continuously deployed to a Cloud platform: Amazon Web Services (AWS), Azure or Google Cloud Platform (GCP);
(3) using cloud solutions to address complex data engineering solutions; and
(4) applying Machine Learning Engineering to build a Flask web application that serves out Machine Learning predictions

Acquired:
6/2022

Generative Adversarial Networks (GANs) Specialization - DeepLearning.AI

https://coursera.org/verify/specialization/KK2V9V35Y5RF

Course Certificates Completed
1. Build Basic Generative Adversarial Networks (GANs)
2. Build Better Generative Adversarial Networks (GANs)
3. Apply Generative Adversarial Networks (GANs)

You have completed all 3 courses of Generative Adversarial Networks - a DeepLearning.AI Specialization. As part of this Specialization, you have learned the classical machine learning skills and the state-of-the-art deep learning techniques needed to build GANs models. You are now equipped to design applications that perform image generation and image-to image translation using GANs! These, and other generative applications, are going to be at the forefront of the coming transformation to an AI-powered future.

Understand GAN components, build basic GANs using PyTorch and advanced DCGANs using convolutional layers, control your GAN and build conditional GAN
Use GANs for data augmentation and privacy preservation, survey GANs applications, and examine and build Pix2Pix and CycleGAN for image translation
Compare generative models, use FID method to assess GAN fidelity and diversity, learn to detect bias in GAN, and implement StyleGAN techniques

Acquired:
6/2022

Machine Learning Engineering for Production (MLOps) Specialization - DeepLearning.AI

https://coursera.org/verify/specialization/AW4WTDAPQ7JV

Course Certificates Completed
1. Introduction to Machine Learning in Production
2. Machine Learning Data Lifecycle in Production
3. Machine Learning Modeling Pipelines in Production
4. Deploying Machine Learning Models in Production

Congratulations! You have completed all four courses of Machine Learning Engineering for Production (MLOps) Specialization. In this Specialization, you learned how to conceptualize and maintain integrated systems. You mastered well-established tools and methodologies to build production systems that can handle relentless evolving data and continuously run at maximum efficiency. You're now familiar with the capabilities, challenges, and consequences of machine learning engineering in production and are ready to level up your career by participating in the development of leading-edge AI technology and solving real-world problems.

Design an ML production system end-to-end: project scoping, data needs, modeling strategies, and deployment requirements. Build data pipelines by gathering, cleaning, and validating datasets. Establish data lifecycle by using data lineage and provenance metadata tools. Establish a model baseline, address concept drift, and prototype how to develop, deploy, and continuously improve a productionized ML application. Apply best practices and progressive delivery techniques to maintain and monitor a continuously operating production system.

Acquired:
6/2022

Machine Learning for Trading Specialization - New York Institute of Finance and Google Cloud

https://coursera.org/verify/specialization/L5FPRQ4APZNF

Course Certificates Completed
1. Introduction to Trading, Machine Learning & GCP
2. Using Machine Learning in Trading and Finance
3. Reinforcement Learning for Trading Strategies

Understand the structure and techniques used in machine learning, deep learning, and reinforcement learning (RL) strategies. Describe the methods used to optimize an ML-driven trading strategy. Describe the steps required to develop and test an ML-driven trading strategy. Use Keras and Tensorflow to build machine learning models.

The courses will teach you how to create various quantitative and algorithmic trading strategies using Python. By the end of the specialization, you will be able to create long-term trading strategies, short-term trading strategies, and hedging strategies.

Acquired:

6/2022

Python, Bash and SQL Essentials for Data Engineering Specialization - DUKE University

https://coursera.org/verify/specialization/RJKPP27EZYZT

Course Certificates Completed
1. Python and Pandas for Data Engineering
2. Linux and Bash for Data Engineering
3. Scripting with Python and SQL for Data Engineering
4. Web Applications and Command-Line Tools for Data Engineering

Develop data engineering solutions with a minimal and essential subset of the Python language and the Linux environment. Use a scraping library in Python to read, identify and extract data from websites. Design scripts to connect and query a SQL database using Python

By completing this Specialization, you have developed the foundational skills necessary for building data engineering solutions, including
(1) setting up a version-controlled Python working environment which can utilize third party libraries;
(2) developing the syntax needed to manage and manipulate databases in a Bash environment;
(3) using a modern text editor to connect and run queries from a database, performing operations to load and extract data; and
(4) applying Python microservices to break up data into portable solutions that can scale across multiple projects

Acquired:
6/2022

SQL for Data Science - University of California, Davis

https://coursera.org/verify/Y29JBT5MCJED

Identify a subset of data needed from a column or set of columns and write a SQL query to limit to those results. Create an analysis table from multiple queries using the UNION operator. Use SQL commands to filter, sort, and summarize data. Manipulate strings, dates, & numeric data using functions to integrate data from different sources into fields with the correct format for analysis.

Acquired:
6/2022

AI for Medicine Specialization - DeepLearning.AI

https://coursera.org/verify/specialization/EJR7S6RJAF4B

Course Certificates Completed
1. AI for Medical Diagnosis
2. AI for Medical Prognosis
3. AI For Medical Treatment

Diagnose diseases from x-rays and 3D MRI brain images. Estimate treatment effects on patients using data from randomized trials. Predict patient survival rates more accurately using tree-based models. Automate the task of labeling medical datasets using natural language processing.

In this Specialization, you gained practical experience applying machine learning to concrete problems in medicine. You learned how to diagnose chest x-rays and

brain scans, evaluate your models, handle missing data, and estimate the effect of treatments. Now you can help transform the practice of medicine worldwide. You can go on to pursue a career in the medical industry as a data scientist, machine learning engineer, innovation officer, or business analyst!

Acquired:
5/2022

Machine Learning on Google Cloud Specialization - Google Cloud

https://coursera.org/verify/specialization/9RDRFZ6NN4GG

Course Certificates Completed
1. How Google does Machine Learning
2. TensorFlow on Google Cloud
3. Launching into Machine Learning
4. Machine Learning in the Enterprise
5. Feature Engineering

Use Vertex AI AutoML and BigQuery ML to build, train, and deploy ML models. Implement machine learning in the enterprise best practices. Implement machine learning models using Keras and TensorFlow 2.x. Describe how to perform exploratory data analysis and improve data quality.

In this five-course specialization, participants learn to build, train, and deploy Vertex AI AutoML and BigQuery ML models; create Vertex AI custom training jobs and deploy using Docker containers; use Feature Store; perform feature engineering; and choose data preprocessing options. They also learn to use Vertex Vizier hyperparameter tuning to
add the right mix of parameters that yields accurate, generalized models and the theory to solve specific types of ML problems. They learn to write distributed ML models that scale in TensorFlow; and leverage best practices to implement machine learning on Google Cloud. They experimented with end-to-end ML — building an ML-focused strategy, then model training, optimization, and productionalization with hands-on labs using Google Cloud Platform

Acquired:
5/2022

TensorFlow: Advanced Techniques Specialization - DeepLearning.AI

https://www.coursera.org/account/accomplishments/specialization/FBVBZEJQHKDZ

Course Certificates Completed
1. Custom Models, Layers, and Loss Functions with TensorFlow
2. Custom and Distributed Training with TensorFlow
3. Advanced Computer Vision with TensorFlow
4. Generative Deep Learning with TensorFlow

Understand the underlying basis of the Functional API and build exotic non-sequential model types, custom loss functions, and layers. Practice object detection, image segmentation, and visual interpretation of convolutions. Learn optimization and how to use GradientTape & Autograph, optimize training in different environments with multiple processors and chip types. Explore generative deep learning, and how AIs can create new content, from Style Transfer through Auto Encoding and VAEs to GANs.

With this Specialization, you've expanded your knowledge of the Functional API and are ready to build exotic non-sequential model types. You learned how to optimize training in different environments with multiple processors and chip types and have also been introduced to advanced computer vision scenarios such as object

detection, image segmentation, and interpreting convolutions. You've explored generative deep learning including the ways AIs can create new content from Style Transfer to Auto Encoding, VAEs, and GANs. You are now equipped to build complex, custom models using TensorFlow

Acquired:
3/2022

Practical Data Science on the AWS Cloud Specialization - AWS, DeepLearning.AI

https://coursera.org/verify/specialization/TQP25FNEG8RT

Course Certificates Completed
1. Analyze Datasets and Train ML Models using AutoML
2. Build, Train, and Deploy ML Pipelines using BERT
3. Optimize ML Models and Deploy Human-in-the-Loop Pipelines

Prepare data, detect statistical data biases, perform feature engineering at scale to train models, & train, evaluate, & tune models with AutoML. Build, deploy, monitor, & operationalize end-to-end machine learning pipelines. Store & manage ML features using a feature store, & debug, profile, tune, & evaluate models while tracking data lineage and model artifacts. Build data labeling and human-in-the-loop pipelines to improve model performance with human intelligence.

In this Specialization, you learned how to build, train, tune, and deploy machine learning models with purpose- built tools in the AWS cloud. You developed practical skills to effectively deploy your data science projects using well-established methodologies and overcome challenges at each step of the ML workflow using Amazon SageMaker. You've become familiar with the capabilities and challenges of practical data science in production environments. You are now ready to level up your career by conducting complex data analysis and solving real-world business problems.

Acquired:
4/2022

TensorFlow Developer Professional Certificate - DeepLearning.AI

https://www.coursera.org/account/accomplishments/professional-cert/KKC7DE48G4R6

Course Certificates Completed
1. Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning
2. Convolutional Neural Networks in TensorFlow
3. Natural Language Processing in TensorFlow
4. Sequences, Time Series and Prediction

Best practices for TensorFlow, a popular open-source machine learning framework to train a neural network for a computer vision applications. Build natural language processing systems using TensorFlow. Handle real-world image data and explore strategies to prevent overfitting, including augmentation and dropout. Apply RNNs, GRUs, and LSTMs as you train them using text repositories.

You have completed all 4 courses of the DeepLearning.AI TensorFlow Developer Professional Certificate program. As part of this Professional Certificate program, you have learned: how to build and train neural networks using TensorFlow, how to improve network performance using convolutions as you train it to identify real-world images, how to teach machines to understand, analyze, and respond to human speech with natural language processing systems, and more! These, and other TensorFlow concepts, are going to be at the forefront of the coming transformation to an AI-powered future

Acquired:
4/2022

TensorFlow: Data and Deployment Specialization - DeepLearning.AI

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Course Certificates Completed
1. Browser-based Models with TensorFlow.js
2. Device-based Models with TensorFlow Lite
3. Data Pipelines with TensorFlow Data Services
4. Advanced Deployment Scenarios with TensorFlow

Run models in your browser using TensorFlow.js. Access, organize, and process
training data more easily using TensorFlow Data Services. Prepare and deploy models
on mobile devices using TensorFlow Lite. Explore four advanced deployment scenarios
using TensorFlow Serving, TensorFlow Hub, and TensorBoard.

In this specialization, you continued to develop your understanding of machine
learning with TensorFlow: Data and Deployment. You have gone beyond basic modeling
and learned how to train and run your models within a browser, optimize machine
learning models for mobile devices, and create effective data pipelines with
TensorFlow Data Services. Now that you've learned the various ways to deploy your
models, you're well-prepared to take your models into the hands of real people on
all kinds of devices!
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Acquired:
3/2022

M121: The MongoDB Aggregation Framework - MongoDB University

```
https://university.mongodb.com/course_completion/067a19a7-6500-4702-9202-
a5ad4853cd9c
```

Acquired:
2/2022

M320: Data Modeling - MongoDB University

```
https://university.mongodb.com/course_completion/b4bff280-f5d6-4c82-a0bb-
505c73a495a5
```

Acquired:
3/2022

M201: MongoDB Performance - MongoDB University

```
https://university.mongodb.com/course_completion/4f147be2-68ff-4443-adb3-
22ee7d2e42d9
```

Acquired:
3/2022

A300: Atlas Security - MongoDB University

```
https://university.mongodb.com/course_completion/bb144f3d-c586-494c-ba70-
4e75c5fef581
```

Acquired:
2/2022

M001: MongoDB Basics- MongoDB University
https://university.mongodb.com/course_completion/e5417dd2-2d62-43bc-8124-2e0187fd5e4f
Acquired:
2/2022

Natural Language Processing Specialization - DeepLearning.AI
https://coursera.org/verify/specialization/KPCD2VRW7H2R

Course Certificates Completed
1. Natural Language Processing with Classification and Vector Spaces
2. Natural Language Processing with Probabilistic Models
3. Natural Language Processing with Sequence Models
4. Natural Language Processing with Attention Models

Use logistic regression, naïve Bayes, and word vectors to implement sentiment analysis, complete analogies & translate words. Use recurrent neural networks, LSTMs, GRUs & Siamese networks in Trax for sentiment analysis, text generation & named entity recognition. Use dynamic programming, hidden Markov models, and word embeddings to implement autocorrect, autocomplete & identify part-of-speech tags for words. Use encoder-decoder, causal, & self-attention to machine translate complete sentences, summarize text, build chatbots & question-answering.

You have completed all four courses of Natural Language Processing - a DeepLearning.AI Specialization. As part of this Specialization, you have learned both the classical machine learning skills and the state-of-the-art deep learning techniques needed to build NLP systems. You are now equipped to design applications that perform question answering and sentiment analysis, create tools to translate languages, summarize text, and build chatbots! These, and other NLP applications, will be at the forefront of the coming transformation to an AI powered future.
Acquired:
4/2022

Practical Guide to Trading Specialization - Interactive Brokers
https://coursera.org/verify/specialization/KDGF4PWJAGXC

Course Certificates Completed
1. Fundamentals of Equities
2. Forex - Trading Around the World
3. U.S. Bond Investing Basics
4. Derivatives - Options & Futures

Understand the interconnectedness of the global capital markets. Acquire knowledge of fixed income products such as corporate and municipal debt. Learn how to trade options, futures, currencies, and equities. Hands-on experience with IBKR’s global trading platform using a simulated trading account.
Acquired:
7/2022

ML and Reinforcement Learning in Finance Specialization New York University
https://coursera.org/verify/specialization/6HED833JFBCC

1. Guided Tour of Machine Learning in Finance

2. Fundamentals of Machine Learning in Finance
3. Reinforcement Learning in Finance
4. Overview of Advanced Methods of Reinforcement Learning in Finance

Compare ML for Finance with ML in Technology (image and speech recognition, robotics, etc.). Explain how Reinforcement Learning is used for stock trading. Describe linear regression and classification models and methods of their evaluation. Become familiar with popular approaches to modeling market frictions and feedback effects for option trading.

In this specialization, students mastered core paradigms and algorithms of machine learning (ML), with a particular focus on applications of ML to various practical problems in Finance. Students developed essential skills needed to be able to solve practical ML- amenable real life problems: (1) mapping the problem on a general landscape of available ML methods, (2) choosing particular ML approach(es) that would be most appropriate for resolving the problem, and (3) successfully implementing a solution, and assessing its performance. Learners completed a Capstone Project in stock trading, asset management, and banking applications.

Acquired:
7/2022