Kenneth Nicholaus

Submit a.i., Founder, Data Science, Machine Learning & Artificial Intelligence Executive

Durham, North Carolina, United States
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kenneth.nicholaus@gmail.com

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.

WORK EXPERIENCE

January 2014-Current

Founder, AI/Machine Learning/Data Science

SUBMIT-AI INC.
United States

•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
•250 + certifications in related fields
•Successfully passed almost all categories of Cloud professional certifications and DeepLearningAI certifications in the first attempt.

1999-2024

Technology Skills

Various
United States

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

1999-2024

Leadership Skills

Various
United States

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.

1999-2024

Consulting Skills

Various
United States

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.

January 2016-May 2018

Founder, Closed

Zipjoint Inc
United States

Closed on May 6, 2018 E-Commerc site.
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

July 2005-August 2015

Founder, Enterprise Planning, Business Intelligence

Yawa Corporation
United States

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 pre-sales team to develop business model prototype 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 model 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 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 Americas financial planning system.

January 1999-July 2005

Principal Consultant/Lead Consultant/Project Manager

IBM previously Cognos and Adaytum
United States

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 pre-sales team to develop business model prototype for proof of concept for various companies. Reviewed and redesigned models for clients who had a business model change. Re-evaluated and re-engineered 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 model 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 PriceWaterhouseCoopers 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 Midwest). Worked on redesign of Merck forecasting systems. Implemented and maintained 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 Americas financial planning system. At SAB Miller, Designed and developed price promotion system to enable sales folks on the field to 'price' products based on their costs and profit requirements. At LandAmerica, Designed, developed and implemented a comprehensive automated financial modeling system of their entire business for their CFOs department.

December 1993-December 1998

Asst. Vice President/Controller

Chase Manhattan Bank/JP Morgan Chase
United States

Worked with McKinsey & Co on a 5-year strategic plan to improve business performance. Identified and worked on strategic projects to double share price in 5 years. Worked with Boston Consulting group to value various business units using free cash flow valuation models and developed strategies to improve shareholder value. Worked with AT Kearney on Strategic sourcing projects to reduce expenses across the bank. Consolidated print expenses across the bank and reduced expenses by $36 million per year. Worked with Tandon capital to reorganize and refocus Chase Manhattan Bank in a project called Focus. Supported senior Chase managers for group 93 and 95 in gathering various survey data and generating reports. Helped to develop the phoenix database. Worked with senior managers to reorganize credit function. Developed 'What if' model to capture inter-relationship between sales volume, head count and other associated variables. As a member of small business integration team developed Chase and Chemical bank's approach and identified key differences in Markets, Customers, Products, Operations, Financial Reporting, Customer Profitability and Branch Incentive Programs. As a member of branch consolidation team, helped in decision making by identifying overlaps

and constraints by analyzing branch operations, real estate, Fixed Assets, Deposit Balances, Branch Pro Forma, Transactions, Branch Configurations, Locations and Staffing etc.,
Developed Key Performance Measures for various sub segments of Small Business (SDO3, SDO1) to enable a logical split to better profitability and improve customer satisfaction. Developed a 3-year forecast model for the branch banking group by region and segment. As a controller of Small Business SDO3 segment, managed financials and reported performance monthly. Developed a baseline expense forecast for a combined chase-chemical branch banking group. Prepared 1995 business plan for Branch Automation Units and Projects. Forecasted Capital, Expenses and depreciations to balance project activities. By consolidating maintenance, saved 300K for the unit per year.
Enabled managers to make timely decision to control expenses. Performed cost analysis and provided analytical, inventory control, asset management and project financial support to senior managers.
Worked on various projects to improve business performance across various business unit. Developed and refined credit risk capital process and calculated capital requirement for the entire bank for credit risk. Responsible for budgeting, reporting and planning for various Consumer Finance Units. Worked on merger projects with Chemical Bank. Controller of small business segment.

EDUCATION

1992-1993

MBA

University of Rochester
Rochester, New York, United States

From Jan 1992 to June 1993: MBA in Finance and Operations
University of Rochester, Rochester NY
Dean's List, Beta Gamma Sigma Honors Society
Project at Chase Manhattan Bank Call center on staffing forecast

- Finance and Operations

SKILLS

Anomaly Detection Autoencoders Balanced Iterative Reducing and Clustering Using Hierarchies Birch Data Science Dbscan Hierarchical Clustering K-Means Linear Discriminant Analysis Logistic Regression Machine Learning Naïve Bayes Neural Networks NON-Negative Matrix Factorization Principal Component Analysis PCA Random Forests Reinforcement Learning Self-Organizing Map SOM Support Vector Machine SVM T-SNE Artificial Intelligence Bayesian Big Data Clustering Data Visualization Datasets Enterprise Resource Planning Latent Dirichlet Allocation Natural Language Processing Risk Analysis Sentiment Analysis API Develop Algorithms Natural Python Keras Matplotlib Numpy Opencv Pandas Tensorflow JAVA Spring Database Mysql Oracle Sqlite BERT Cognos Optimization SVC Docker Linux Project Manager

Deltek Cash Flow Forecasting Strategic Planning Financial Planning Trading Financial Modeling Financial Reporting Portfolio Management Asset Management Finance SEC Closing Real Estate Analysis General Ledger Cost Analysis Budgeting Incentive Programs Segmentation Marketing Business Plan Business Intelligence Social Media Marketing Market Analysis Retail Consumer Products Real Estate Merger and Acquisition Computer Vision Financial Support Best Practices Credit Risk Metrics Staffing Operations Sales Team Sales Volume Accounting Posting AD Hoc Analysis Balance Sheet Financials Regulatory Reporting Strategic Sourcing Inventory Inventory Control Training Programs Employee Resource Group Mechanical Engineering Estimator Translations Visualization Scraping Maintenance Bank Call Center Excel Microsoft Word Pre-Sales Consulting Dimensional Modeling Financial Systems Proof of Concept Prototyping eCommerce Sales Social Media Artificial Intelligence (AI) Data Management Investment Management Face Recognition Employee Retention Trading/Stockbroking Risk Management Industry/Trade Analysis Team Lead/Manager Sales Cloud Computing Analysis Skills Conversation Engine Head of Finance Business Model Project/Program Management Performance Metrics Customer Satisfaction Sourcing Strategy Small Business Reporting Skills Financial Management Consumer Finance Financial Projections Budget Reporting Performance Management Data Collection Database Programming Recruiting/Staffing/Hiring Banking Services Profit & Loss Capital Project Production Management Vendor/Supplier Management Generative AI ML Ops Cellular Telephone Inventory Management Software Development Quality Control Mentoring Startup Manufacturing Insurance Research & Development (R&D) Capital Expenditure (CAPEX) Process Improvement Business Development Air Cargo Model Review International Business Biotech and Pharmaceutical Funding Deltek Accounting Software Reengineering eCommerce Deep Learning Hybrid Cloud Cloud Applications Distributed Computing Data Warehousing Cloud Architecture Maintain Compliance Product Planning Applications Security Management Strategy Computer Security Computer Architecture Software Engineering Legal DevOps Microservices Machine Translation Microsoft C# (C Sharp) Flask Django Tableau Looker JavaScript CSS (Cascading Style Sheet) IBM Product Family Amazon Web Services (AWS) Linux Operating System PostgreSQL Python Programming/Scripting Language Apache Hadoop Scala Programming Language HTML (HyperText Markup Language) Microsoft Windows Azure MongoDB CUDA (Compute Unified Device Architecture) Natural Language Toolkit (NLTK) Leadership Fortune 500 Customers Change Management Product Pricing Promotional Programs

CERTIFICATIONS

Business Analytics Certificate - Harvard Business School Online

Module 1: Describing and Summarizing Data, Recognize trends in data and detect outliers, summarize data sets concisely,

and analyze relationships between variables.
Module 2: Sampling and Estimation
Create representative samples and draw conclusions about the larger population and craft sound survey questions.
Module 3: Hypothesis Testing, Quantify the evidence in favor of or against your hypothesis in order to make managerial decisions.
Module 4: Single Variable Linear Regression, Analyze the relationship between two variables and develop forecasts for values outside the data set.
Module 5: Multiple Regression, Identify relationships among three or more variables to improve understanding of data and provide better forecasts.

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

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.

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

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

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.

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.

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

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.

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!

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

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

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.

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

TensorFlow: Data and Deployment Specialization - DeepLearning.AI

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!

M121: The MongoDB Aggregation Framework - MongoDB University

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

M320: Data Modeling - MongoDB University

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

M201: MongoDB Performance - MongoDB University

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

A300: Atlas Security - MongoDB University

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

M001: MongoDB Basics- MongoDB University

https://university.mongodb.com/course_completion/e5417dd2-2d62-43bc-8124-2e0187fd5e4f

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.

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.

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.

Google Cloud Certified - Cloud Digital Leader (Expiration Oct 2025)

https://www.credential.net/ac7d7cf5-80b4-44f9-8352-e807266dcce7?key=b9f0d9c429cc5debbadf7a9a44777e330d6cb79c8602f6059092b394d8c18edd

A Cloud Digital Leader can articulate the capabilities of Google Cloud core products and services and how they benefit organizations. They can also describe common business use cases and how cloud solutions support an enterprise.

This certification is for anyone who wishes to demonstrate their knowledge of cloud computing basics and how Google Cloud products and services can be used to achieve an organization’s goals.

The Cloud Digital Leader exam assesses your knowledge in these areas:

Digital transformation with Google Cloud
Exploring data transformation with Google Cloud
Innovating with Google Cloud artificial intelligence
Modernizing infrastructure and applications with Google Cloud
Trust and security with Google Cloud
Scaling with Google Cloud operations

Google Cloud Certified - Associate Cloud Engineer (Expiration May 2026)

https://google.accredible.com/b0909039-d31e-4217-b842-f2d9821b53fc?key=e614117abd13bd757dde5f56618942ba98104e33399ea7ba5f4bb35f54bca6a6#gs.z8m8sq

Associate Cloud Engineers deploy applications, monitor operations, and manage enterprise solutions. They use Google Cloud Console and the command-line interface to perform common platform-based tasks to maintain one or more deployed solutions that leverage Google-managed or self-managed services on Google Cloud.

The Associate Cloud Engineer exam assesses your ability to:

Set up a cloud solution environment
Plan and configure a cloud solution
Deploy and implement a cloud solution
Ensure successful operation of a cloud solution
Configure access and security

Google Cloud Certified - Professional Cloud Security Engineer (Expiration Oct 2025)

https://google.accredible.com/b2cea919-0f0b-48c9-abc1-12c95dda3b29

A Cloud Security Engineer allows organizations to design and implement secure workloads and infrastructure on Google Cloud. Through an understanding of security best practices and industry requirements, this individual designs, develops, and manages a secure solution by using Google security technologies. A Cloud Security Engineer is proficient in identity and access management, defining organizational security structure and policies, using Google Cloud technologies to provide data protection, configuring network security defenses, monitoring environments for threats, security automation, AI security, the secure software supply chain, and enforcing regulatory controls.

The Professional Cloud Security Engineer exam assesses your ability to:

Configure access.
Secure communications and establish boundary protection.
Ensure data protection.
Manage operations.
Support compliance requirements.

Google Cloud Certified - Professional Cloud Architect (Expiration Nov-2025)

https://google.accredible.com/bf4bcafb-bc37-4842-b53f-58be86e5cedc

Professional Cloud Architects enable organizations to leverage Google Cloud technologies. With a thorough understanding of cloud architecture and Google Cloud, they design, develop, and manage robust, secure, scalable, highly available, and dynamic solutions to drive business objectives.

The Professional Cloud Architect certification exam assesses your ability to:

Design and plan a cloud solution architecture
Manage and provision the cloud solution infrastructure
Design for security and compliance
Analyze and optimize technical and business processes
Manage implementations of cloud architecture
Ensure solution and operations reliability

Google Cloud Certified - Professional Cloud Developer (Expiration Dec-2025)

https://google.accredible.com/65f328bd-c6d9-486c-9b98-2e71ec7050e7

A Professional Cloud Developer builds scalable and highly available applications using Google-recommended tools and best practices. This individual has experience with cloud-native applications, developer tools, managed services, and next-generation databases. A Professional Cloud Developer also has proficiency with at least one general-purpose programming language and instruments their code to produce metrics, logs, and traces.

The Professional Cloud Developer exam assesses your ability to:

Design highly scalable, available, reliable cloud-native applications
Build and test applications
Deploy applications
Integrate Google Cloud services

Manage deployed applications

Google Cloud Certified - Professional Cloud DevOps Engineer (Expiration Dec 2025)

https://google.accredible.com/d4768a44-5d90-4067-ae23-23a58087ca56

Professional Cloud DevOps Engineers implement processes throughout the systems development lifecycle using Google-recommended methodologies and tools. They build and deploy software and infrastructure delivery pipelines, optimize and maintain production systems and services, and balance service reliability with delivery speed.

The Professional Cloud DevOps Engineer exam assesses your ability to:

Bootstrap a Google Cloud organization for DevOps
Build and implement CI/CD pipelines for a service
Apply site reliability engineering practices to a service
Implement service monitoring strategies
Optimize service performance

Google Cloud Certified - Professional Cloud Database Engineer (Expiration Jan 2026)

https://google.accredible.com/8fd7ded5-fba2-4a38-94d2-d95c78941e21

A Professional Cloud Database Engineer is a database professional with two years of Google Cloud experience and five years of overall database and IT experience. The Professional Cloud Database Engineer designs, creates, manages, and troubleshoots Google Cloud databases used by applications to store and retrieve data. The Professional Cloud Database Engineer should be comfortable translating business and technical requirements into scalable and cost-effective database solutions.

The Professional Cloud Database Engineer exam assesses your ability to:

Design scalable and highly available cloud database solutions
Manage a solution that can span multiple database solutions
Migrate data solutions
Deploy scalable and highly available databases in Google Cloud

Google Cloud Certified - Professional Data Engineer (Expiration Feb - 2026)

https://google.accredible.com/2c599f62-6ebf-46a0-96ea-42b9de639430

A Professional Data Engineer makes data usable and valuable for others by collecting, transforming, and publishing data. This individual evaluates and selects products and services to meet business and regulatory requirements. A Professional Data Engineer creates and manages robust data processing systems. This includes the ability to design, build, deploy, monitor, maintain, and secure data processing workloads.

The Professional Data Engineer exam assesses your ability to:

Design data processing systems

Ingest and process the data
Store the data
Prepare and use data for analysis
Maintain and automate data workloads

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.
Skills: AutoML, BigQuery ML, Cloud Storage, Data Processing, Google Cloud Platform (GCP), Machine Learning, ML APIs, ML Ops, Responsible AI, Scalability, Vertex AI

Develop GenAI Apps with Gemini and Streamlit - Google Cloud Skill Badge

https://www.credly.com/badges/063dcb6a-36e3-4fc8-8e3c-70801d9fd176

Complete the intermediate Develop GenAI Apps with Gemini and Streamlit skill badge to demonstrate skills in the following: text generation, applying function calls with the Python SDK and the Gemini API, and deploying a Streamlit application with Cloud Run. You will explore different ways to prompt Gemini for text generation, use Cloud Shell to test and iterate on a Streamlit application, and then package it as a Docker container deployed in Cloud Run.
Skills: Application Development, Gemini, Generative AI, Python, Streamlit, Vertex AI

Inspect Rich Documents with Gemini Multimodality and Multimodal RAG Skill Badge - Google Cloud

https://www.credly.com/badges/367d5be0-432f-4d5e-af63-ec9f944faf28

Complete the intermediate Inspect Rich Documents with Gemini Multimodality and Multimodal RAG skill badge to demonstrate skills in the following: using multimodal prompts to extract information from text and visual data, generating a video description, and retrieving extra information beyond the video using multimodality with Gemini; building metadata of documents containing text and images, and printing citations by using Multimodal Retrieval Augmented Generation (RAG) with Gemini.
Skills: Gemini, Multimodality, RAG, Vertex AI

Build and Deploy Machine Learning Solutions on Vertex AI Skill Badge - Google Cloud

https://www.credly.com/badges/62f7d9bc-e1a8-4fce-a139-565086c6fde1

Complete the intermediate Build and Deploy Machine Learning Solutions on Vertex AI skill badge to demonstrate skills in the following: how to use Google Cloud's unified Vertex AI platform and its AutoML and custom training services to train, evaluate, tune, explain, and deploy machine learning solutions.
Skills: AutoML, BERT, Cloud Build, ML Model Training, Vertex AI

Build a Website on Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/f29e3b1c-5249-4c92-bea4-eb33751d439f

Complete the introductory Build a Website on Google Cloud skill badge to demonstrate skills in the following: deploy a website on Cloud Run, Host a web app on Compute Engine, Create, deploy, and scale your website on Google Kubernetes Engine, Migrate from a monolithic application to a microservices architecture.Complete the introductory Build
Skills: Cloud Build, Cloud Run, Compute Engine, GKE, Microservice Architecture

Create and Manage Cloud Spanner Instances Skill Badge Issued by Google Cloud

https://www.credly.com/badges/690d4ee3-939c-42a7-a8a5-b675173e5595

Complete the introductory Create and Manage Cloud Spanner Instances skill badge to demonstrate skills in the following: creating and interacting with Cloud Spanner instances and databases; loading Cloud Spanner databases using various techniques; backing up Cloud Spanner databases; defining schemas and understanding query plans; and deploying a Modern Web App connected to a Cloud Spanner instance.
Skills: Cloud Database, Cloud Spanner, Database Migration

Create and Manage Bigtable Instances Skill Badge Issued by Google Cloud

https://www.credly.com/badges/a30aa5c2-fa56-4f6b-9a6f-5c7e8243fd82

Complete the intermediate Create and Manage Bigtable Instances skill badge to demonstrate skills in the following: creating instances, designing schemas, querying data, and performing administrative tasks in Bigtable including monitoring Bigtable performance and configuring node autoscaling and replication.
Skills: BigTable, Data Query, NoSQL Databases

Orchestrate PaLM LLM solutions with LangChain Skill Badge Issued by Google Cloud

https://www.credly.com/badges/c2b4fa2c-6bd8-42a1-b3fe-811d93acb5cb

Complete the Orchestrate PaLM LLM solutions with LangChain skill badge to demonstrate skills in the following: using LangChain to call Google Cloud LLMs and Generative AI Services and Datastores to simplify complex applications' code.
Skills: LangChain, Palm Apis, Pgvector

Develop Advanced Enterprise Search and Conversation Applications Skill Badge Issued by Google Cloud

https://www.credly.com/badges/1acd34f4-5452-4771-8b88-f0f01403c2b7

Complete the Develop Advanced Enterprise Search and Conversation Applications skill badge to demonstrate skills in the following: using text embeddings for tasks like classification, outlier detection, text clustering and semantic search. Combining semantic search with the text generation capabilities of an LLM to build Retrieval Augmented Generation (RAG) solutions, such as for question-answering systems, using Google Cloud's Vertex AI and Google Cloud databases.
Skills: Conversational AI, Embeddings, Prompt Engineering, Semantic Search, Vector Search

Integrate Vertex AI Search & Conversation into Voice and Chat Apps Skill Badge Issued by Google Cloud

Complete the Integrate Vertex AI Search & Conversation into Voice and Chat Apps skill badge to demonstrate skills in the following: new Generative AI technologies, such as integrating Vertex AI Search and Conversation into Voice and Chat Apps, and creating end-to-end search and conversational experiences. Providing enterprise-grade search experiences for internal and external websites to search documents, structure data and public websites.
Skills: Conversational AI, Dialogflow, Enterprise Search, Virtual Agents

Implement Cloud Security Fundamentals on Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/78ce3f2e-ceea-43f7-84ff-c34845e68fd6

Complete the intermediate Implement Cloud Security Fundamentals on Google Cloud skill badge to demonstrate skills in the following: creating and assigning roles with Identity and Access Management (IAM); creating and managing service accounts; enabling private connectivity across virtual private cloud (VPC) networks; restricting application access using Identity-Aware Proxy; managing keys and encrypted data using Cloud Key Management Service (KMS); and creating a private Kubernetes cluster.
Skills: App Deployment, Authentication, Cloud Key Management, GKE, Identity And Access Management, Kubectl, Kubernetes, Security, Service Account,VPC Peering

Build Infrastructure with Terraform on Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/c37b38ae-d1a4-459e-b611-3c5d1f2e89fe
Complete the Build Infrastructure with Terraform on Google Cloud skill badge to demonstrate skills in the following: Infrastructure as Code (IaC) principles using Terraform, provisioning and managing Google Cloud resources with Terraform configurations, effective state management (local and remote), and modularizing Terraform code for reusability and organization.
Skills: Google Cloud Platform (GCP), Infrastructure as Code (IaC), Terraform

Cloud Architecture: Design, Implement, and Manage Skill Badge Issued by Google Cloud

https://www.credly.com/badges/e1c1f8d4-e020-4b09-b1d4-1ee7a78b2702

Complete the Cloud Architecture: Design, Implement, and Manage skill badge to demonstrate skills in the following: deploy a publicly accessible website using Apache web servers, configure a Compute Engine VM using startup scripts, configure secure RDP using a Windows Bastion host and firewall rules, build and deploy a Docker image to a Kubernetes cluster and then update it, and create a CloudSQL instance and import a MySQL database.
Skills: Cloud Architecture, Compute Engine, Kubernetes, MySQL

Build a Secure Google Cloud Network Skill Badge Issued by Google Cloud

https://www.credly.com/badges/01338596-1a7e-4cca-ac96-c17849938cde

Complete the Build a Secure Google Cloud Network skill badge to demonstrate skills in the following: build, scale, and secure your applications on Google Cloud

Skills: Cloud Security, Networking, VPC Network

Prepare Data for ML APIs on Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/bf9bba03-d4f2-4780-8cd7-049cf1848e40

Complete the introductory Prepare Data for ML APIs on Google Cloud skill badge to demonstrate skills in the following: cleaning data with Dataprep by Trifacta, running data pipelines in Dataflow, creating clusters and running Apache Spark jobs in Dataproc, and calling ML APIs including the Cloud Natural Language API, Google Cloud Speech-to-Text API, and Video Intelligence API.Complete the introductory Prepare Data for ML APIs on Google Cloud skill badge to demonstrate skills in the following: cleaning data with Dataprep by Trifacta, running data pipelines in Dataflow, creating clusters and running Apache Spark jobs in Dataproc, and calling ML APIs including the Cloud Natural Language API, Google Cloud Speech-to-Text API, and Video Intelligence API.
Skills: Cloud Natural Language API, Dataflow, Data Pipeline, Data Preparation, DataProc, Google Cloud Speech API, Machine Learning, Python, TensorFlow, Vertex AI

Develop Your Google Cloud Network Skill Badge Issued by Google Cloud

https://www.credly.com/badges/5fcd862d-5e21-4cc1-b254-e33c5aa7cae7

Complete the Develop Your Google Cloud Network skill badge to demonstrate skills in the following: explore IAM rols and add/remove project access, create VPC networks, deploy and monitor Compute Engine VMs, write SQL queries, deploy and monitor VMs in Compute Engine, and deploy applications using Kubernetes with multiple deployment approaches.
Skills: Cloud Functions, Cloud Storage, IAM, Monitoring, Pub/sub

Deploy Kubernetes Applications on Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/8db4e479-44e5-4c18-b4c4-c6d1713051b0

Complete the Deploy Kubernetes Applications on Google Cloud skill badge to demonstrate skills in the following: configuring and building Docker container images, creating and managing Google Kubernetes Engine (GKE) clusters, utilizing kubectl for efficient cluster management, and deploying Kubernetes applications with robust continuous delivery (CD) practices.

Skills: Artifact Registry, Container, Docker, GKE

Optimize Costs for Google Kubernetes Engine Skill Badge Issued by Google Cloud

https://www.credly.com/badges/a3da5f27-cb94-4438-884c-308f4fe25f35

Complete the Optimize Costs for Google Kubernetes Engine skill badge to demonstrate skills in the following: creating and managing multi-tenant clusters, monitoring resource usage by namespace, configuring cluster and pod autoscaling for efficiency, setting up load balancing for optimal resource distribution, and implementing liveness and readiness probes to ensure application health and cost-effectiveness.
Skills: Access Control, Application Deployment, Application Traffic, Autoscaling, Cloud Architecture, GKE, Kubernetes, Load Balancing, Logging, Looker, Node Pools, Pods, Virtual Machines

Implement Load Balancing on Compute Engine Skill Badge Issued by Google Cloud

https://www.credly.com/badges/27d9301a-6ca4-422b-a8e2-537e370798d7

Complete the Implement Load Balancing on Compute Engine skill badge to demonstrate skills in the following: write gcloud commands and use Cloud Shell, create and deploy virtual machines in Compute Engine, run containerized applications on Google Kubernetes Engine, and configure network and HTTP load balancers.
Skills: Cloud Computing, Compute Engine, GKE, Kubernetes, Networking

Text Prompt Engineering Techniques Skill Badge Issued by Google Cloud

https://www.credly.com/badges/fe076590-b980-42ad-9b06-54532180740c

Complete the Text Prompt Engineering Techniques skill badge to demonstrate skills in the following: using a generative model and prompting techniques as a creative process that to generate ideations, for example memes and marketing campaigns and using PaLM and Gemini APIs and large language models to analyze and manipulate text and answer questions.
Skills: Gemini APIs, PaLM SDK for Python, Prompt Engineering

Implement Cloud Security Fundamentals on Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/6694143a-ed6c-4c08-938e-ded8f90df8f8

Complete the intermediate Implement Cloud Security Fundamentals on Google Cloud skill badge to demonstrate skills in the following: creating and assigning roles with Identity and Access Management (IAM); creating and managing service accounts; enabling private connectivity across virtual private cloud (VPC) networks; restricting application access using

Identity-Aware Proxy; managing keys and encrypted data using Cloud Key Management Service (KMS); and creating a private Kubernetes cluster.
Skills: App Deployment, Authentication, Cloud Key Management, GKE, Identity And Access Management, Kubectl, Kubernetes, Security, Service Account, VPC Peering

Implement DevOps Workflows in Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/5fbcc368-3aea-49ce-8175-f9beb6b848ca

Complete the Implement DevOps Workflows in Google Cloud skill badge to demonstrate skills in the following: creating git repositories with Cloud Source Repositories, launching, managing, and scaling deployments on Google Kubernetes Engine (GKE), and architecting CI/CD pipelines that automate container image builds and deployments to GKE.
Skills: Artifact Registry, CI/CD, Cloud Build, Cloud Source Repositories, DevOps, Git, GKE

Develop Serverless Applications on Cloud Run Skill Badge Issued by Google Cloud

https://www.credly.com/badges/f9939a2f-d149-443f-ada5-5b191edd33e7

Complete the Develop Serverless Applications on Cloud Run skill badge to demonstrate skills in the following: integrating Cloud Run with Cloud Storage for data management, architecting resilient asynchronous systems using Cloud Run and Pub/Sub, constructing REST API gateways powered by Cloud Run, and building and deploying services on Cloud Run.
Skills: Cloud Build, Cloud Run, Cloud Storage, Containers, Docker, Firestore, Microserverice, Pub/sub, REST API, Serverless, Service Account

Build Infrastructure with Terraform on Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/324b14dd-47f0-449d-9c55-0d989e127114

Complete the Build Infrastructure with Terraform on Google Cloud skill badge to demonstrate skills in the following: Infrastructure as Code (IaC) principles using Terraform, provisioning and managing Google Cloud resources with Terraform configurations, effective state management (local and remote), and modularizing Terraform code for reusability and organization.
Skills: Google Cloud Platform (GCP), Infrastructure as Code (IaC), Terraform

Create ML Models with BigQuery ML Skill Badge Issued by Google Cloud

https://www.credly.com/badges/842b852e-c707-4147-abb4-b3f89f2756d1

Complete the Create ML Models with BigQuery ML skill badge to demonstrate skills in the following: creating and evaluating machine learning models with BigQuery ML to make data predictions.
Skills: BigQuery ML, Dialogflow, Forecasting, Machine Learning

Set Up an App Dev Environment on Google Cloud Skill Badge Issued by Google Cloud

https://www.credly.com/badges/53008a6c-b104-4ca7-af1d-831c9d838ddb

Complete the Set Up an App Dev Environmen on Google Cloud skill badge to demonstrate skills in the following: how to build and connect storage-centric cloud infrastructure using the basic capabilities of the of the following technologies: Cloud Storage, Identity and Access Management, Cloud Functions, and Pub/Sub.
Skills: Cloud Functions, Cloud Storage, IAM, Monitoring, Pub/sub

Monitor and Log with Google Cloud Operations Suite Skill Badge Issued by Google Cloud

https://www.credly.com/badges/aa827d00-5e25-4206-8f8a-800d72e2fe11

Complete the Monitor and Log with Google Cloud Operations Suite skill badge to demonstrate skills in the following:

monitoring virtual machines in Compute Engine, utilizing Cloud Monitoring for multi-project oversight, extending monitoring and logging capabilities to Cloud Functions, creating and sending custom application metrics, and configuring Cloud Monitoring alerts based on custom metrics.
Skills: Alerts, Cloud Functions, Compute Engine, Dashboard, Logging, Monitoring

Set Up a Google Cloud Network Skill Badge Issued by Google Cloud

https://www.credly.com/badges/7447fbab-9196-46e2-a871-ce81c7ffd8ad

Complete the Set Up a Google Cloud Network skill badge to demonstrate skills in the following: Set IAM features with the gcloud CLI tool; deploy and scale a Web App on Google Compute Engine; provision a Kubernetes cluster and break an application into microservices; perform basic networking tasks on Google Cloud Platform; view BigQuery logs inside Cloud Logging, and migrate a stand-alone PostgreSQL database to Cloud SQL using a continuous Database Migration Service job.
Skills: Cloud Computing, Database Migration, IAM

HONORS & AWARDS

MBA, Dean's List, Beta Gamma Sigma Honors Society, Teaching Assistant

Bachelors, Mechanical Engineering, Honors

LANGUAGES

English - Fluent | Spanish - Intermediate | Tamil - Fluent | Hindi - Intermediate | Telugu - Intermediate

EXTRACURRICULARS

Tracks

WORK AUTHORIZATION

I am authorized to work in the following countries:

- United States