

Savinay Shukla

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Data Science Professional Certificate (V2)

Issued by: [Coursera](#)

Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 25 March 2022

Description

The badge earner is ready for a career in data science with demonstrated ability to solve for real-world problems. They can apply Data Science methodology - work with Jupyter notebooks - create Python apps - access relational databases using SQL & Python - use Python libraries to generate data visualizations - perform data analysis using Pandas - construct & evaluate Machine Learning (ML) models using Scikit-learn & SciPy and apply data science & ML techniques to real data sets.



Course Number: IBM-0017 (v.1)

Total Credits: 12

Grade: Pass

Credit Recommendation

- 3 semester hours in introduction to data science in the lower-division undergraduate category
- 3 semester hours in introduction to SQL programming in the lower-division undergraduate category
- 3 semester hours in introduction to Python programming in the lower-division undergraduate category
- 3 semester hours in advanced topics in data science in the upper-division undergraduate category



Docker Essentials: A Developer Introduction

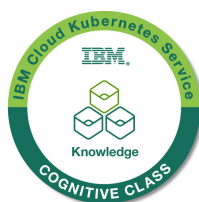
Issued by: IBM

Issued to: Savinay Shukla

Issued on: 10 April 2020

Description

Earners of this badge know what Docker containers are and their benefits. The individual knows how to run containers from Docker Hub, create Docker containers, and how to solve basic problems of orchestration (reconciliation, scaling, high availability, service discovery). The badge earner also understands best practices for using DockerFiles and the basics of how to use tools such as the IBM Cloud Kubernetes Service.



IBM Cloud Kubernetes Service

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 4 June 2020

Description

The badge earner understands core concepts of Kubernetes: VMs vs. containers, Kubernetes architectural model, key resources, and pods. The individual also knows how to build a Docker image and deploy an app on Kubernetes in the IBM Cloud Kubernetes Service, control app deployments while minimizing time with infrastructure management, and add Watson services to applications.



Getting started with Microservices with Istio and IBM Cloud Kubernetes Service

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 19 September 2020

Description

The badge earner is able to: describe the 12-factor app principles, list the benefits of cloud native apps and the microservices architecture, describe how microservices are managed with IBM Cloud Container Service and Istio, show how to design microservices and how they communicate, show how a service mesh helps with microservice implementations, describe how Istio can be used to connect, manage, and secure microservices, and describe the logical components of Istio's data and control plane.



Machine Learning with Python - Level 1

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 10 March 2021

Description

The badge earner demonstrates an understanding of Supervised vs. Unsupervised Learning, applications of different types of machine learning models, and how to build and evaluate machine learning models.



Deep Learning Essentials

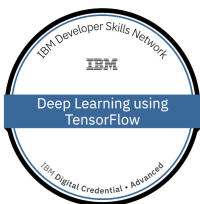
Issued by: IBM

Issued to: Savinay Shukla

Issued on: 5 July 2021

Description

This badge earner has acquired core knowledge of how the Deep Learning class of machine learning algorithms can be harnessed for more powerful and insightful data processing and pattern creation used in decision-making processes. This includes how convolutional neural networks are used to enhance the effectiveness of image recognition and classification.



Deep Learning using TensorFlow

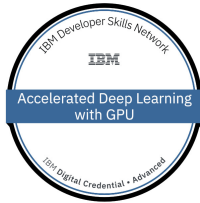
Issued by: IBM

Issued to: Savinay Shukla

Issued on: 5 July 2021

Description

This badge earner has an understanding of essential concepts, functional attributes, operational considerations and the execution pipeline when using TensorFlow. This includes how TensorFlow can be used in curve fitting, regression, classification and minimization of error functions. The earner has also demonstrated knowledge of how to apply TensorFlow for backpropagation to tune the weights and biases while the Neural Networks are being trained.



Accelerated Deep Learning with GPU

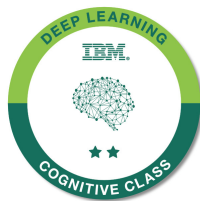
Issued by: IBM

Issued to: Savinay Shukla

Issued on: 5 July 2021

Description

This badge earner has acquired essential knowledge related to how accelerated hardware can be leveraged to overcome scalability challenges common with deep learning solutions. This includes an understanding of how a graphics processing unit (GPU) can be used to accelerate convolutional neural network computations within a cloud computing environment.



Deep Learning

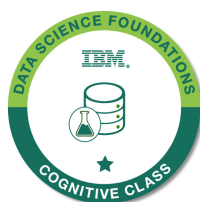
Issued by: IBM

Issued to: Savinay Shukla

Issued on: 5 July 2021

Description

This badge earner understands the main concepts of Neural networks. The individual knows which network is used to tackle a problem, and can implement different shallow and deep networks with TensorFlow.



Data Science Foundations - Level 1

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 6 July 2021

Description

This badge earner has an understanding of the possibilities and opportunities that data science, analytics and big data bring to new applications in any industry.



Data Science Methodologies

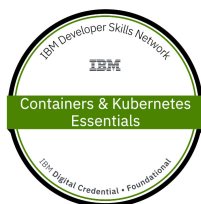
Issued by: IBM

Issued to: Savinay Shukla

Issued on: 6 July 2021

Description

This badge earner understands the essential steps used in data science business and research problem solving. This includes problem definition, collecting and analyzing data, building relevant models and understanding model deployment results.



Containers & Kubernetes Essentials

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 6 July 2021

Description

This badge earner is able to build and run a container image and understands Kubernetes architecture. They know how to: write a YAML deployment file; expose deployment as a service; manage applications with Kubernetes; use ReplicaSets, auto-scaling, rolling updates and service binding; deploy services; and reap the benefits of OpenShift, Istio and other key tools.



App Modernization Basics

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 6 July 2021

Description

Badge earners understand concepts of containers, container orchestration, and Kubernetes. They demonstrate knowledge of legacy app migration methods, microservices architecture, and the twelve-factor app methodology for building cloud native apps. They can describe the steps involved in the replatform, repackaging, and refactor modernization approaches. They understand the results from running the IBM Cloud Transformation Advisor on a monolithic Java EE application.



Enterprise Design Thinking Practitioner

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 2 August 2021

Description

The earner has acquired knowledge of applying Enterprise Design Thinking and its value. As a Practitioner, the badge earner finds opportunities to try it out in their every day work.



Enterprise Design Thinking - Team Essentials for AI

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 2 August 2021

Description

This badge earner has demonstrated proficiency in using Enterprise Design Thinking concepts and activities to design responsible artificial intelligence systems with intention and a focus on people.



IBM AI Associate for All IBMers

Issued by: IBM

Issued to: Savinay Shukla

Issued on: 7 August 2021

Description

This badge earner demonstrates an understanding of artificial intelligence (AI) concepts, data science fundamentals, and the IBM strategy for AI. This includes knowledge about the Watson products and services, the application of AI in business, and how cloud and AI work together. IBMers earning this badge from the IBM AI Skills Academy can identify opportunities of AI in business and are encouraged to pursue additional AI learning specific to their roles and responsibilities.



Data Science Methodology

Issued by: [Coursera](#)

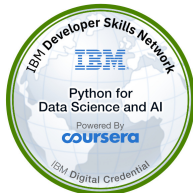
Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 22 March 2022

Description

This badge earner has demonstrated a thorough understanding of the different stages that constitute the data science methodology, which is instrumental to solving any data science problem.



Python for Data Science and AI

Issued by: [Coursera](#)

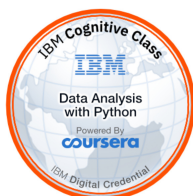
Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 22 March 2022

Description

This badge earner has the core skills in Python such as critical data structures, programming fundamentals and experience with core libraries for data science. They can apply this knowledge to work with data and develop applications for data science. The individual also has sufficient Python knowledge to work with Python libraries.



Data Analysis with Python

Issued by: [Coursera](#)

Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 22 March 2022

Description

This badge earner has the core skills in Data Analysis using Python. They can readily clean, visualize and summarize data using Pandas. Using Scikit-learn, the earner can develop Data Pipelines, construct Machine learning models for Regression and evaluate these models.



Python Project for Data Science

Issued by: [Coursera](#)

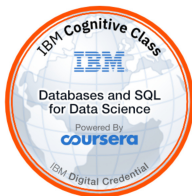
Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 22 March 2022

Description

This badge earner demonstrates foundational Python skills for working with data. This includes: understanding the role of a Data Scientist / Data Analyst; applying Python fundamentals, working with Python data structures, and working with data in Python; and how to build a dashboard using Python and popular Python libraries using Jupyter notebook.



Databases and SQL for Data Science

Issued by: [Coursera](#)

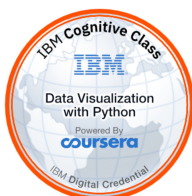
Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 23 March 2022

Description

This badge earner understands relational database concepts, can construct and execute SQL queries, and has demonstrated hands-on experience accessing data from databases using Python-based Data Science tools like Jupyter notebooks.



Data Visualization with Python

Issued by: [Coursera](#)

Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 24 March 2022

Description

This badge earner has a good understanding of what data visualization is, uses of data visualization, and best practices when creating plots and visuals. The individual has the skills to use different Python Libraries, mainly Matplotlib and Seaborn to generate different types of visualization tools such as line plots, scatter plots, bubble plots, area plots, histograms, and bar charts. The earner is able to use the Folium library to visualize geospatial data and to create choropleth maps.



Machine Learning with Python

Issued by: Coursera

Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 25 March 2022

Description

The badge earner has demonstrated a good understanding and application of machine learning (ML) including when to use different ML techniques such as regression, classification, clustering and recommender systems. The individual has acquired the skills to use different machine learning libraries in Python, mainly Scikit-learn and Scipy, to generate and apply different types of ML algorithms such as decision trees, logistic regression, k-means, KNN, DBSCAN, SVM and hierarchical clustering.



Data Science Professional Certificate

Issued by: Coursera

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Issued on: 25 March 2022

Description

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Applied Data Science Capstone

Issued by: Coursera

Authorized by: IBM

Issued to: Savinay Shukla

Issued on: 25 March 2022

Description

The badge earner has demonstrated proficiency in applying Data Science and some Machine

Learning concepts including identifying and clearly defining a problem that can be solved using location data, working with and making calls to APIs, and using location data to solve the problem defined. The individual has also demonstrated proficiency in documenting their work and preparing a full formal data science project report.

AMERICAN COUNCIL ON EDUCATION TRANSCRIPT LEGEND

This official transcript contains credentials evaluated by the American Council on Education. The following policies apply only to ACE validated and endorsed credentials within the transcript. The American Council on Education's Learning Evaluations connects workplace learning with colleges and universities by helping adults gain access to academic credit for formal courses and examinations taken outside traditional degree programs. ACE is the national leader in the evaluation process for education and training obtained outside the classroom.

ACE Learning Evaluations reviews are conducted by experienced college and university faculty who assess the content, scope, and rigor of an organization's educational program and make appropriate recommendations for comparable college credit and competencies achieved by students. For more information on processes and standards for ACE reviews, visit <https://www.acenet.edu/Programs-Services/Pages/Credit-Transcripts/Colleges-Universities.aspx>.

DEFINITIONS

American Council on Education Endorsement: Credentials that carry an ACE endorsement of recommended college credits or validated competencies are designated by the ACE logo in the left margin.

Name: Legal name as entered by the student at the time of transcript request. Because students may complete courses from multiple organizations, each credential also includes the name under which the credential was issued for tracking and verification if necessary.

Credly ID#: Due to a system of record change in 2019, student ID numbers may not match numbers on older ACE transcripts.

Issued on: The date when the student completed the associated credential.

Courses: ACE-endorsed credentials include a unique identifier that ACE assigns to courses and examinations. The letter prefix designates the organization providing the experience. Duplicates may appear if a student took and passed a course or examination more than once.

Credit Recommendations: Recommendations for college credit are designated in semester hour units (SH). Each recommendation includes a total number of SH credits recommended and a breakdown of one or more subject areas and credit levels. Levels for which recommendations are issued include Vocational/Certificate, Lower Division (100-200 level courses), Upper Division (300-400 level courses), and Graduate (500+ level courses).

Grade: ACE-endorsed credentials are only included on this official transcript if the student achieved a passing grade. ACE-endorsed courses and exams meet the following minimum grading requirements: Students must earn a minimum "C" grade for Vocational/Certificate, Lower Division, and Upper Division credit and a minimum "B" grade for Graduate level credit.

RESOURCES

Additional information on ACE-endorsed educational programs, such as learning outcomes, assessment methods, etc. can be found in the National Guide to College Credit for Workforce Training at <https://www.acenet.edu/national-guide/>. Military training and occupations that carry college credit recommendations can be found at The ACE Military Guide at: <https://www.acenet.edu/Programs-Services/Pages/Credit-Transcripts/military-guide-online.aspx>.

Inquires: Please address inquiries to:
American Council on Education Learning Evaluations
One Dupont Circle NW, Suite 250,
Washington DC, 20036

Email: CREDIT@acenet.edu

Phone: 1-866-205-6267

Technical Support: For technical support, visit the Credly Help Center: <https://support.credly.com/hc/en-us>

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