

BA24/GRAD/XXIV-07/M002D4KY3234

Certificate of Completion

is proudly presented to

Muhammad Raffa Reyhan

7385776 - Institut Teknologi Bandung

for successfully completing **Bangkit, specializing in Machine Learning.**

Bangkit is a Google-led academy designed to produce high-caliber technical talent for world-class Indonesian technology companies and startups.

Program Period : February 16, 2024 - June 30, 2024

July 10, 2024

Dora S.

Dora Songco

Product Marketing Manager
Google Indonesia

STUDENT LEARNING ACHIEVEMENT

Bangkit ID : M002D4KY3234
Name : Muhammad Raffa Reyhan
University : Institut Teknologi Bandung

Bangkit Completion : Full Graduate
Learning Path : Machine Learning
Capstone Status : Finished

No	Courses/Specialization/Activities	Learning Outcomes	Hours	Score (0-100)	Score Description
1	Google IT Automation with Python	By the end of the course, the student will be able to comprehend how to build Python programs and automate general tasks by writing Python scripts.	55	95.9	The student comprehends the knowledge of building Python programs and how to automate general tasks by writing Python scripts.
2	Data Analysis with Python	By the end of the course, the students will be able to grasp the key concepts in data analysis and extract insights from data through the analysis process to address business problems effectively.	30	90.3	Students are well equipped to grasp the key concepts in data analysis and extract insights from data through the analysis process to address business problems effectively.
3	Google Data Analytics	By the end of the course, the student will be able to grasp the learning material related to data cleansing, problem-solving, critical thinking, data ethics, and data visualization.	73	96.8	The student is competent to grasp the learning material related to data cleansing, problem-solving, critical thinking, data ethics, and data visualization.
4	Mathematics for Machine Learning and Data Science	By the end of the course, the student will have a deep understanding of the math that makes machine learning algorithms work.	58	92.5	The student exhibits a profound grasp of the mathematical concepts that underlie machine learning algorithms.
5	Machine Learning Specialization	By the end of the course, the student will be able to comprehend the fundamental concepts of Machine Learning (Build ML models with NumPy & scikit-learn, supervised models, unsupervised, and use decision trees) and also understand the application of machine learning to solve real-world problems.	72	96.6	The student masters the fundamental concepts (Build ML models with NumPy & scikit-learn, supervised models, unsupervised, and use decision trees) and also understands the application of machine learning to solve real-world problems.
6	Deeplearning.ai TensorFlow Developer Professional Certificate	By the end of the course, the student will be able to apply TensorFlow skills (NLP, Neural Network) to various problems and projects.	79	94.9	The student can apply TensorFlow skills (NLP, Neural Network) to various problems and projects.
7	Tensorflow Data and Deployment	By the end of the course, the student will be able to deploy Machine Learning models on the web.	47	95.5	The student is adept at deploying Machine Learning models on the web.
8	Structuring Machine Learning Projects	By the end of the course, the student will be able to execute the end-to-end workflow from the Machine Learning project.	6	83.8	The student is skilled in executing the end-to-end workflow from the Machine Learning project.
9	Intro to Generative AI	By the end of the course, the student will be able to grasp key concepts in generative AI.	4	93.5	Students can grasp key concepts in generative AI effectively.
10	TensorFlow: Advance Techniques Specialization	By the end of the course, the student will be able to apply advanced techniques in deep learning using TensorFlow.	67	95.9	Students can effectively apply various advanced techniques in deep learning using TensorFlow.
11	Preparing for Tensorflow Developer Certification	By the end of the course, the student will be able to prepare to take the TensorFlow Developer Certificate exam.	25	96.8	The student has carefully prepared themselves to take the TensorFlow Developer Certificate exam.
12	Capstone / Final Project	By the end of the course, the student will be able to begin stages of a final project, namely developing an application/solution that validates their product development skills and boosts the portfolio.	200	88	The student is competent to begin stages of a final project, namely developing an application/solution that validates their product development skills and boosts the portfolio.
13	Soft skill & Career Development	By the end of the course, the student will be able to comprehend Life Path, Growth Mindset, The Power of Feedback, Time Management, Critical Thinking, Problem Solving, Adaptability, Resilience, Project Management, Professional Communication, Networking, Digital Branding, and Interview Communication.	242	84.4	The student thoroughly comprehends Life Path, Growth Mindset, The Power of Feedback, Time Management, Critical Thinking, Problem Solving, Adaptability, Resilience, Project Management, Professional Communication, Networking, Digital Branding, and Interview Communication.

This is Bangkit-system-generated certificate and valid without signature