Machine Learning Engineer Nanodegree

UDACITY

Program Timeline

Your **Nanodegree program** will be an epic adventure! Each week, you'll learn and apply new skills, and share successes and challenges with your learning community. Whatever your pace or daily schedule along the way, use the timeline below as a tool to make sure you stay on track with your cohort and cross the finish line to graduation. We can't wait to see where your adventure takes you!

*Tasks listed should be completed by the end of each week except for **project** submissions, which are due on the **Monday of the week** that they're listed in. Links will take you to the Nanodegree program to tackle the tasks!

Click <u>here</u> to download this timeline, and <u>here</u> to see how to mark tasks as completed.

Week	What To Work On
Week 0	*Week enrollment opens Enroll and familiarize yourself with the Nanodegree path Watch the Welcome to the Nanodegree program video
Week 1	Complete the <u>Artificial Intelligence Introduction</u> lesson
Week 2	 Complete the <u>Machine Learning Introduction</u> and <u>Data Science</u> <u>Introduction</u> lessons
	Model Evaluation and Validation
Week 3	 Watch the <u>Intro to Model Evaluation and Validation</u> video and check out the <u>Project 1: Predicting Boston Housing Prices</u> description Begin <u>Lesson 1: Introduction and Statistics</u>
Week 4	☐ Complete <u>Lesson 1: Introduction and Statistics</u>
Week 5	☐ Complete <u>Lesson 2: Evaluating Model Performance</u>
Week 6	☐ Complete <u>Lesson 3: Data Modeling and Validation</u>
Week 7	☐ Complete <u>Lesson 4: Model Optimization</u>
Week 8	☐ Begin working on <u>Project 1: Predicting Boston Housing Prices</u>
Week 9	Work on <u>Project 1: Predicting Boston Housing Prices</u>
Week 10	 Complete and submit <u>Project 1: Predicting Boston Housing Prices</u>, begin Supervised Learning, <u>Lesson 1: Supervised Learning Intro</u>

	Supervised Learning
Week 11	 Complete Lesson 1: Supervised Learning Intro and Lesson 2: Decision Trees Check out the Project 2: Building a Student Intervention System description and familiarize yourself with the rubric and requirements
Week 12	☐ Complete <u>Lesson 3: Regression</u>
Week 13	☐ Complete <u>Lesson 4: Neural Networks</u>
Week 14	☐ Complete <u>Lesson 5: Kernel Methods</u>
Week 15	☐ Complete <u>Lesson 6: Instance Based Learning</u>
Week 16	☐ Begin <u>Lesson 7: Bayesian Learning</u>
Week 17	☐ Complete <u>Lesson 7: Bayesian Learning</u>
Week 18	☐ Complete <u>Lesson 8: Ensemble Learning</u>
Week 19	☐ Begin <u>Project 2: Building a Student Intervention System</u>
Week 20	 Complete and submit <u>Project 2: Building a Student Intervention System</u>, begin Unsupervised Learning, <u>Lesson 1: Clustering</u>
	Unsupervised Learning
Week 21	 Work on <u>Lesson 1: Clustering</u> Check out the <u>Project 3: Creating Customer Segments</u> description and familiarize yourself with the rubric and requirements
Week 22	☐ Complete <u>Lesson 1: Clustering</u>
Week 23	☐ Complete <u>Lesson 2: Feature Scaling</u>
Week 24	☐ Complete <u>Lesson 3: Feature Selection</u>
Week 25	☐ Begin <u>Lesson 4: Feature Transformation</u>
Week 26	☐ Work on <u>Lesson 4: Feature Transformation</u>
Week 27	☐ Complete <u>Lesson 4: Feature Transformation</u>
Week 28	☐ Complete <u>Lesson 5: Semisupervised Learning</u>
Week 29	☐ Begin working on Project 3: Creating Customer Segments
Week 30	Complete and submit <u>Project 3: Creating Customer Segments</u>
	Reinforcement Learning
Week 31	 Begin Reinforcement Learning, Complete <u>Lesson 1: Markov Decision Processes</u> Check out the <u>Project 4: Train a Smartcab to Drive</u> description and familiarize yourself with the rubric and requirements
Week 32	☐ Complete <u>Lesson 2: Reinforcement Learning</u> and <u>Lesson 3: Game Theory</u>
Week 33	■ Begin and complete <u>Project 4: Train a Smartcab to Drive</u>

Specialization		
NOTE	With your remaining time, you will choose your own path by selecting a specialization. We encourage you to download and fill in the below dates with the lessons and activities that correspond with your choice. For reference, the pacing to this point has been approx. 1 lesson per week. We have provided general steps to help you define and complete your project, however, you will need to consider your unique goals to submit your Project 5: Capstone Project.	
Week 34	☐ Define your problem	
Week 35	☐ Describe a solution	
Week 36	☐ Analyze the problem	
Week 37	☐ Implement a solution	
Week 38	☐ Refine your solution	
Week 39	☐ Complete and submit <u>Project 5: Capstone Project</u>	