**45 Days of Machine Learning for Free in Telugu**

YouTube Channel Name: [Nerchuko](https://www.youtube.com/channel/UCm4_rUfjicRxAlcnkXoOWzQ)

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Prerequisite: [What is Google Colab? How to use it?](https://youtu.be/lKtw5-Hy_PM)

**Day 1:**

* [Introduction to Python & How to Start with Python?](https://www.youtube.com/watch?v=_2UI15zuc0Y&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=1&ab_channel=Nerchuko)
* [Variables in Python](https://www.youtube.com/watch?v=Sbe-cyzv5X4&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=2&ab_channel=Nerchuko)
* [Strings in Python](https://www.youtube.com/watch?v=mSGVuyA7bAQ&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=3&ab_channel=Nerchuko)
* [String Formatting in Python](https://www.youtube.com/watch?v=3lrUFM9BCJU&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=4&ab_channel=Nerchuko)

**Day 2:**

* [List in Python](https://www.youtube.com/watch?v=b_6jAfOc32s&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=5&ab_channel=Nerchuko)
* [Dictionaries in Python](https://www.youtube.com/watch?v=oYi2P1NMg2s&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=6&ab_channel=Nerchuko)
* [Tuples, Set, & Comparison Operators in Python](https://www.youtube.com/watch?v=rFJgDxNziAg&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=7&ab_channel=Nerchuko)
* [Conditional Statements](https://www.youtube.com/watch?v=dWC_KvoGG_A&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=8&ab_channel=Nerchuko)

**Day 3:**

* [For Loop in Python](https://www.youtube.com/watch?v=oPLLD_yioYA&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=9&ab_channel=Nerchuko)
* [While Loop in Python](https://www.youtube.com/watch?v=kjVLw-IxOD8&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=10&ab_channel=Nerchuko)
* [Functions in Python](https://www.youtube.com/watch?v=p_geyBOx4Io&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=12&ab_channel=Nerchuko)
* [Python - Problem Solving 1](https://www.youtube.com/watch?v=eFgVYyp7Q2g&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=11&ab_channel=Nerchuko)
* [Python - Problem Solving 2](https://www.youtube.com/watch?v=vi-2asjwcYE&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=13&ab_channel=Nerchuko)

**Day 4:**

* [Python Operators - input, enumerate, zip, range, min, max, random](https://www.youtube.com/watch?v=av5HQmB7p0M&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=14&ab_channel=Nerchuko)
* [List Comprehensions](https://www.youtube.com/watch?v=Ig_tdxcfrHc&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=15&ab_channel=Nerchuko)
* [Guessing Game Challenge - Mini Project](https://www.youtube.com/watch?v=AaDEHww9pGs&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=16&ab_channel=Nerchuko)
* [List Methods - append, count, extend, insert, pop, remove](https://www.youtube.com/watch?v=qduCpDJh7Lg&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=18&ab_channel=Nerchuko)
* [Python - Problem Solving 3](https://www.youtube.com/watch?v=v-qIMeH4zSM&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=19&ab_channel=Nerchuko)

**Day 5:**

* [Lambdas, Map, & Filter](https://www.youtube.com/watch?v=s7cIHEt2xps&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=20&ab_channel=Nerchuko)
* [Arguments & Keyword Arguments](https://www.youtube.com/watch?v=2uTS7g2iySY&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=22&ab_channel=Nerchuko)
* [Exception Handling](https://www.youtube.com/watch?v=JtvT-YOPBRE&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=23&ab_channel=Nerchuko)
* [Python - Problem Solving 4](https://www.youtube.com/watch?v=-_39f2oQJMA&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=28&ab_channel=Nerchuko)

**Day 6:**

* [Classes and Objects](https://www.youtube.com/watch?v=PJJUpzExFxI&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=24&ab_channel=Nerchuko)
* [Inheritance in Python](https://www.youtube.com/watch?v=HbELUzuwd50&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=25&ab_channel=Nerchuko)
* [Polymorphism](https://www.youtube.com/watch?v=ZWwQQ_T2Cnc&list=PLVG0Zju2HPJc_djazvkvbRfKlrkQ1Wl-r&index=26&ab_channel=Nerchuko)
* [URL Shortener using Python - Mini Project](https://www.youtube.com/watch?v=i8OHyXN4Z90&list=PLVG0Zju2HPJcErpDV1DY4fRBJeTSuvIES&index=7&ab_channel=Nerchuko)

**Day 7:**

* [Create and Read QR Code using Python - Mini Project](https://www.youtube.com/watch?v=bnG4RSC5fL0&list=PLVG0Zju2HPJcErpDV1DY4fRBJeTSuvIES&index=3&ab_channel=Nerchuko)
* [Convert any PDF to AudioBook - Mini Project](https://www.youtube.com/watch?v=3XuAfBELJGw&list=PLVG0Zju2HPJcErpDV1DY4fRBJeTSuvIES&index=6&ab_channel=Nerchuko)
* [Spell Correction using Python - Mini Project](https://www.youtube.com/watch?v=JnGbGfbiPbU&list=PLVG0Zju2HPJcErpDV1DY4fRBJeTSuvIES&index=9&ab_channel=Nerchuko)
* [Emotion Detector using Python - Mini Project](https://www.youtube.com/watch?v=G7IPZLJL7zw&list=PLVG0Zju2HPJcErpDV1DY4fRBJeTSuvIES&index=11&ab_channel=Nerchuko)

**Day 8:**

* [How much Statistics should I learn for Machine Learning?](https://www.youtube.com/watch?v=VhMEa6xBW1g&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=6&t=588s&ab_channel=Nerchuko)
* [Descriptive Statistics VS Inferential Statistics](https://www.youtube.com/watch?v=VuTXCexqj7w&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=1&t=75s&ab_channel=Nerchuko)
* [Sample vs Population Statistics](https://www.youtube.com/watch?v=zV430YeANLo&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=2&ab_channel=Nerchuko)
* [Random Variables](https://www.youtube.com/watch?v=vhPNsuOmLIo&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=3&ab_channel=Nerchuko)
* [Mean, Median, Mode](https://www.youtube.com/watch?v=kpyEPjFQ5H4&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=4&ab_channel=Nerchuko)
* [Range](https://www.youtube.com/watch?v=FGa1kkb1R0k&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=5&ab_channel=Nerchuko)
* [Variance & Standard Deviation](https://www.youtube.com/watch?v=USdJbe8Fww0&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=6&ab_channel=Nerchuko)
* [Quartiles and Inter Quartile Range](https://www.youtube.com/watch?v=fAd3e1JpCKg&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=7&ab_channel=Nerchuko)

**Day 9:**

* [Gaussian Distribution](https://youtu.be/IdExZaDBN6k)
* [Skewness of Data](https://youtu.be/GbNtC4Cn9S8)
* [Z Score and Standard Normal Distribution](https://www.youtube.com/watch?v=cZyxevaFmRQ&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=10&ab_channel=Nerchuko)
* [Central Limit Theorem](https://youtu.be/ej6jrQykZbk)

**Day 10:**

* [Covariance Vs Correlation](https://www.youtube.com/watch?v=KCUMS0KRORQ&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=13&ab_channel=Nerchuko)
* [Pearson Correlation Coefficient](https://www.youtube.com/watch?v=xI730ESg010&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=14&ab_channel=Nerchuko)
* [Spearman Rank Correlation Coefficient](https://www.youtube.com/watch?v=xI730ESg010&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=14&ab_channel=Nerchuko)
* [Q - Q Plots](https://www.youtube.com/watch?v=elZ78hNdgEs&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=11&ab_channel=Nerchuko)

**Day 11:**

* [Chebyshev’s Theorem](https://www.youtube.com/watch?v=1wrBitV7eyA&list=PLVG0Zju2HPJd_M1o_YeX1BH9XVR8ZeOF9&index=15&ab_channel=Nerchuko)
* Hypothesis Testing
* Z - Stats vs T - Stats
* Confidence Interval

**Day 12:**

* Chi-Square Test
* ANOVA Test
* Power Law Distribution

**Day 13:**

* Log-Normal Distribution
* Pareto Distribution
* Box-Cox Transformation

**Day 14 & 15:**

[Check these Statistics Interview Questions](https://towardsdatascience.com/50-statistics-interview-questions-and-answers-for-data-scientists-for-2021-24f886221271)

[Check these Statistics Interview Questions](https://analyticsindiamag.com/40-interview-questions-on-statistics-for-data-scientists/)

[Check these Statistics Interview Questions](https://intellipaat.com/blog/interview-question/statistics-interview-questions/)

**Day 16:**

* [Numpy Arrays](https://www.youtube.com/watch?v=75t2S0EQ6gI&list=PLVG0Zju2HPJe7G6B2C53_0QWEpZgtUUlT&index=1&t=62s&ab_channel=Nerchuko)
* [Numpy Indexing](https://www.youtube.com/watch?v=CZLYV7suRkg&list=PLVG0Zju2HPJe7G6B2C53_0QWEpZgtUUlT&index=2&ab_channel=Nerchuko)
* [Numpy Operations](https://www.youtube.com/watch?v=3yPrulgdb9Q&list=PLVG0Zju2HPJe7G6B2C53_0QWEpZgtUUlT&index=3&ab_channel=Nerchuko)

**Day 17:**

* [Pandas - Series](https://www.youtube.com/watch?v=rSQfSCvcaZo&list=PLVG0Zju2HPJcPdGYVZtNUOz9J-L_jYZpW&index=1&t=74s&ab_channel=Nerchuko)
* [Pandas - DataFrame](https://www.youtube.com/watch?v=-8tSjpvWPew&list=PLVG0Zju2HPJcPdGYVZtNUOz9J-L_jYZpW&index=2&ab_channel=Nerchuko)
* [Pandas - Missing Data, Groupby](https://www.youtube.com/watch?v=HqfbLrkdg9E&list=PLVG0Zju2HPJcPdGYVZtNUOz9J-L_jYZpW&index=3&ab_channel=Nerchuko)
* [Pandas - Operations](https://www.youtube.com/watch?v=4L-sMIt2Iw8&list=PLVG0Zju2HPJcPdGYVZtNUOz9J-L_jYZpW&index=4&ab_channel=Nerchuko)

**Day 18:**

* [IPL Data Analysis (Part 1) - Mini Project](https://www.youtube.com/watch?v=2F7AZf2PQqs&list=PLVG0Zju2HPJcPdGYVZtNUOz9J-L_jYZpW&index=5&ab_channel=Nerchuko)
* [IPL Data Analysis (Part 2) - Mini Project](https://www.youtube.com/watch?v=CMIzx3MIYFA&list=PLVG0Zju2HPJcPdGYVZtNUOz9J-L_jYZpW&index=6&ab_channel=Nerchuko)
* [David Warner Batting Analysis - Mini Project](https://www.youtube.com/watch?v=zvrjeuGE8AQ&list=PLVG0Zju2HPJcPdGYVZtNUOz9J-L_jYZpW&index=7&ab_channel=Nerchuko)

**Day 19:**

* [Introduction to Machine Learning](https://www.youtube.com/watch?v=kO61XbNa1P0&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=1&t=1s&ab_channel=Nerchuko)
* [AI vs ML vs DL vs Data Science](https://www.youtube.com/watch?v=KrHsWp4HePQ&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=2&ab_channel=Nerchuko)
* [Datasets for Machine Learning](https://www.youtube.com/watch?v=5NZ4H1IQdu8&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=7&ab_channel=Nerchuko)
* [Bias, Variance, Underfitting, Overfitting](https://www.youtube.com/watch?v=7P8Hxf5OYcE&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=8&ab_channel=Nerchuko)

**Day 20:**

* [Data Preprocessing - Theory](https://www.youtube.com/watch?v=Q2rnxACYSzI&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=9&ab_channel=Nerchuko)
* [Data Preprocessing - Implementation](https://www.youtube.com/watch?v=N0zKrkH-bGw&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=10&ab_channel=Nerchuko)
* [Simple Linear Regression - Theory](https://www.youtube.com/watch?v=Hc_aP1-xgYU&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=11&ab_channel=Nerchuko)
* Gradient Descent
* [Simple Linear Regression - Implementation](https://www.youtube.com/watch?v=nPegVII6Z80&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=12&ab_channel=Nerchuko)

**Day 21:**

* [Multiple Linear Regression - Theory](https://www.youtube.com/watch?v=8-yutrl4fR8&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=13&ab_channel=Nerchuko)
* [Multiple Linear Regression - Implementation](https://www.youtube.com/watch?v=7zwbgtNkjNI&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=14&ab_channel=Nerchuko)
* [Polynomial Regression - Theory](https://www.youtube.com/watch?v=ob-AaQLOfuk&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=15&ab_channel=Nerchuko)
* [Polynomial Regression - Implementation](https://www.youtube.com/watch?v=Q3xsfRsSq8Y&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=16&ab_channel=Nerchuko)

**Day 22:**

* [Regression Trees - Part 1](https://www.youtube.com/watch?v=v3YK909_BQY&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=18&ab_channel=Nerchuko)
* [Regression Trees - Part 2](https://www.youtube.com/watch?v=Ex_CVaJQP6k&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=19&ab_channel=Nerchuko)
* [Regression Trees - Implementation](https://www.youtube.com/watch?v=KOxD9XlVhOc&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=20&ab_channel=Nerchuko)

**Day 23:**

* [What is Ensemble Learning?](https://www.youtube.com/watch?v=gL8_6JgW9sg&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=21&ab_channel=Nerchuko)
* [Random Forest Regression - Theory](https://www.youtube.com/watch?v=2nQPwnHbHPU&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=22&ab_channel=Nerchuko)
* [Random Forest Regression - Implementation](https://www.youtube.com/watch?v=eRqi7U63Z04&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=23&ab_channel=Nerchuko)

**Day 24:**

* [Regression Metrics](https://www.youtube.com/watch?v=UxUqydX92W0&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=25&ab_channel=Nerchuko)
* [R Squared vs Adjusted R Squared](https://www.youtube.com/watch?v=3wTgMZ1jmIY&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=26&ab_channel=Nerchuko)
* [Backward Elimination (Adjusted R Squared)](https://www.youtube.com/watch?v=dd7TZg4_fVU&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=27&ab_channel=Nerchuko)
* [L1 and L2 Regularization](https://www.youtube.com/watch?v=JFkC4rES6ls&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=28&ab_channel=Nerchuko)

**Day 25:**

* [How to handle Imbalanced Datasets](https://www.youtube.com/watch?v=r9JkTtqLyuw&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=24&ab_channel=Nerchuko)
* [Confusion Matrix](https://www.youtube.com/watch?v=P8m664iFNNQ&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=29&ab_channel=Nerchuko)
* [Confusion Matrix using Scikit Learn](https://www.youtube.com/watch?v=JVb6nx0LSq8&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=30&ab_channel=Nerchuko)
* [Logistic Regression Theory](https://www.youtube.com/watch?v=IYkoW9pXxRc&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=31&ab_channel=Nerchuko)
* [Logistic Regression Implementation](https://www.youtube.com/watch?v=IYkoW9pXxRc&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=31&ab_channel=Nerchuko)

**Day 26:**

* [K Nearest Neighbors - Theory](https://www.youtube.com/watch?v=xXt0d6fs1LY&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=33&ab_channel=Nerchuko)
* [K Nearest Neighbors - Implementation](https://www.youtube.com/watch?v=-_ruNGoTE1M&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=34&ab_channel=Nerchuko)
* [Support Vector Machine - Theory](https://www.youtube.com/watch?v=a996BtdSqzQ&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=35&ab_channel=Nerchuko)
* [Support Vector Machine - Implementation](https://www.youtube.com/watch?v=miKjdWiFyqc&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=36&ab_channel=Nerchuko)

**Day 27:**

* [Naive Bayes Classifier (Part 1) - Theory](https://www.youtube.com/watch?v=oZ6HeF6rzI0&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=37&ab_channel=Nerchuko)
* [Naive Bayes Classifier (Part 2) - Theory](https://www.youtube.com/watch?v=nhXQmOXnV9o&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=38&ab_channel=Nerchuko)
* [Naive Bayes Classifier - Implementation](https://www.youtube.com/watch?v=O5ppXhwxqU4&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=39&ab_channel=Nerchuko)

**Day 28:**

* [Decision Tree Classifier - Theory](https://www.youtube.com/watch?v=jikhf_BnBIA&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=40&ab_channel=Nerchuko)
* [Decision Tree Classifier - Implementation](https://www.youtube.com/watch?v=OCvBJuFkrXI&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=41&ab_channel=Nerchuko)
* [Random Forest Classifier - Theory](https://www.youtube.com/watch?v=oI8m6LCC_gQ&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=42&ab_channel=Nerchuko)
* [Random Forest Classifier - Implementation](https://www.youtube.com/watch?v=DClGJAnSZKU&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=43&ab_channel=Nerchuko)

**Day 29:**

* [K Means Clustering - Theory](https://www.youtube.com/watch?v=78d0VNnlZ5w&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=48&ab_channel=Nerchuko)
* [K Means Clustering - Implementation](https://www.youtube.com/watch?v=nA5CrbG2MbU&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=49&ab_channel=Nerchuko)
* [Hierarchical Clustering - Theory](https://www.youtube.com/watch?v=iM1lLm5MwGo&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=50&ab_channel=Nerchuko)
* [Hierarchical Clustering - Implementation](https://www.youtube.com/watch?v=pBG0U-FjRSw&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=51&ab_channel=Nerchuko)

**Day 30:**

* [Dimensionality Reduction](https://www.youtube.com/watch?v=55myqacrIBM&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=52&ab_channel=Nerchuko)
* [Principal Component Analysis - Theory](https://www.youtube.com/watch?v=vIybRCvyQ7s&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=53&ab_channel=Nerchuko)
* [Principal Component Analysis - Implementation](https://www.youtube.com/watch?v=U7HLx0hxJbg&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=54&ab_channel=Nerchuko)
* [Linear Discriminant Analysis - Implementation](https://www.youtube.com/watch?v=P0cxOpb0R_M&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=55&ab_channel=Nerchuko)

**Day 31:**

* [Cross-Validation Types](https://www.youtube.com/watch?v=KHGTyEm_NW0&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=44&ab_channel=Nerchuko)
* [K - Fold Cross-Validation](https://www.youtube.com/watch?v=DyXirD83x3g&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=45&ab_channel=Nerchuko)
* [Hyperparameter Tuning - GridSearchCV](https://www.youtube.com/watch?v=CrIJ8aLcVyk&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=47&ab_channel=Nerchuko)
* [Hyperparameter Tuning - Randomized SeachCV](https://www.youtube.com/watch?v=HkQEOJBdeJ4&list=PLVG0Zju2HPJe0bhmV6l1MEE-6h0MG-20P&index=46&ab_channel=Nerchuko)

**Day 32:**

* [Medical Insurance Premium Prediction - Project](https://www.youtube.com/watch?v=oC-KXYpyj-o&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=30&ab_channel=Nerchuko)
* [Loan Status Prediction - Project](https://www.youtube.com/watch?v=YoiIVBlflqM&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=27&ab_channel=Nerchuko)
* [Used Car Price Prediction - Project](https://youtu.be/TxpPUf1h28U)

**Day 33:**

* [Introduction to Flask Web FrameWork](https://www.youtube.com/watch?v=7ZvXGNKwXp8&list=PLVG0Zju2HPJdIoMidf1i0hfccIcsGTyx6&index=1&ab_channel=Nerchuko)
* [Flask HTML templates](https://www.youtube.com/watch?v=YWh3IRVR_74&list=PLVG0Zju2HPJdIoMidf1i0hfccIcsGTyx6&index=2&ab_channel=Nerchuko)
* [Template Inheritance in Flask](https://www.youtube.com/watch?v=yn_gEelAERU&list=PLVG0Zju2HPJdIoMidf1i0hfccIcsGTyx6&index=3&ab_channel=Nerchuko)
* [HTTP Requests & HTML Forms in Flask](https://www.youtube.com/watch?v=rP25szmF3qw&list=PLVG0Zju2HPJdIoMidf1i0hfccIcsGTyx6&index=4&ab_channel=Nerchuko)

**Day 34:**

* [Credit Card Fraud Detection - Project](https://www.youtube.com/watch?v=yGN5V0vILL0&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=2&ab_channel=Nerchuko)
* [Diabetes Prediction using ML (Part 1) - Project](https://www.youtube.com/watch?v=6LHCWOSQpjE&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=6&ab_channel=Nerchuko)
* [Diabetes Prediction using ML (Part 2) - Project](https://www.youtube.com/watch?v=t4pbQPbc0Ug&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=7&ab_channel=Nerchuko)
* [Heart Disease prediction (Part 1) - Project](https://www.youtube.com/watch?v=rcUgIXfALpU&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=22&ab_channel=Nerchuko)
* [Heart Disease Prediction (Part 2) - Project](https://www.youtube.com/watch?v=-EvXigN7ViM&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=23&ab_channel=Nerchuko)
* [Liver Disease Prediction (Part 1) - Project](https://www.youtube.com/watch?v=UZm4vYZobtk&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=24&ab_channel=Nerchuko)
* [Liver Disease Prediction (Part 2) - Project](https://www.youtube.com/watch?v=7V0g1zWj9JQ&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=25&ab_channel=Nerchuko)

**Day 35:**

* [Introduction to Natural Language Processing](https://www.youtube.com/watch?v=CwxyCs8Kz5I&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=1&ab_channel=Nerchuko)
* [Spacy Basics](https://www.youtube.com/watch?v=HVUZSaqJsh4&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=3&ab_channel=Nerchuko)
* [What is Tokenisation?](https://www.youtube.com/watch?v=bgOMgctOhA0&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=4&ab_channel=Nerchuko)
* [What is Stemming?](https://www.youtube.com/watch?v=vhlpzYJX9LM&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=5&ab_channel=Nerchuko)
* [What is Lemmatization?](https://www.youtube.com/watch?v=1dg-rMRgQrw&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=6&ab_channel=Nerchuko)
* [What are StopWords?](https://www.youtube.com/watch?v=-tYGjk6UF0E&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=7&ab_channel=Nerchuko)
* [Working with Stop Words?](https://www.youtube.com/watch?v=o2qeQl5lFJg&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=8&ab_channel=Nerchuko)

**Day 36:**

* [Vocabulary Matching](https://www.youtube.com/watch?v=gzSEq19SDGM&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=9&ab_channel=Nerchuko)
* [Parts of Speech Tagging](https://www.youtube.com/watch?v=np8Fqkryst0&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=10&ab_channel=Nerchuko)
* [Named Entity Recognition](https://www.youtube.com/watch?v=SSsvUuBBR_c&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=11&ab_channel=Nerchuko)
* [Bag of Words Model](https://www.youtube.com/watch?v=xXm3INIzODo&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=12&ab_channel=Nerchuko)

**Day 37:**

* [Restaurant Reviews Sentiment Analysis - Project](https://www.youtube.com/watch?v=roxRPH_oxmI&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=16&ab_channel=Nerchuko)
* [SMS Spam Detector (Part 1) - Project](https://www.youtube.com/watch?v=v31KafvAJ-U&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=13&ab_channel=Nerchuko)
* [SMS Spam Detector (Part 2) - Project](https://www.youtube.com/watch?v=YUDdhX9J1qY&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=14&ab_channel=Nerchuko)
* [Sentiment Analysis using Vader - Project](https://www.youtube.com/watch?v=fdOzbFJDPPY&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=20&ab_channel=Nerchuko)

**Day 38:**

* [What are Word Vectors?](https://www.youtube.com/watch?v=7wvyEPuWJ3U&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=19&ab_channel=Nerchuko)
* [Password Strength Checker (Part 1) - Project](https://www.youtube.com/watch?v=YnOJNyJZzrw&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=17&ab_channel=Nerchuko)
* [Password Strength Checker (Part 2) - Project](https://www.youtube.com/watch?v=N2ZjWId94-s&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=18&ab_channel=Nerchuko)
* [Movie Recommendation System - Project](https://www.youtube.com/watch?v=WqAk7_FmBEM&list=PLVG0Zju2HPJfW2rqtu330DD-MaPk-bvMZ&index=24&ab_channel=Nerchuko)

**Day 39:**

* [Introduction to Computer Vision and its application](https://www.youtube.com/watch?v=0gvFlQ_Jv8k&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=2&ab_channel=Nerchuko)
* [Reading, Writing, and Displaying images using OpenCV](https://www.youtube.com/watch?v=kUN_4KGK_sA&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=3&ab_channel=Nerchuko)
* [Drawing Images using OpenCV](https://www.youtube.com/watch?v=WLzq5V2ADbA&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=4&ab_channel=Nerchuko)
* [Translation and Rotation of Images](https://www.youtube.com/watch?v=iQ9d-CrfVjA&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=5&ab_channel=Nerchuko)
* [Resizing and Cropping Images](https://www.youtube.com/watch?v=V0-BPD6xWeg&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=6&ab_channel=Nerchuko)

**Day 40:**

* [Blurring & Sharpening Images using OpenCV](https://www.youtube.com/watch?v=JIQaNcWboTY&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=7&ab_channel=Nerchuko)
* [Thresholding Images using OpenCV](https://www.youtube.com/watch?v=KhIu5avuEMs&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=8&ab_channel=Nerchuko)
* [Edge Detection using OpenCV](https://www.youtube.com/watch?v=JlUrvOnyQWM&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=9&ab_channel=Nerchuko)
* [Live Sketch using WebCam - Project](https://www.youtube.com/watch?v=CzZWmR44avA&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=10&ab_channel=Nerchuko)

**Day 41:**

* [What are Contours?](https://www.youtube.com/watch?v=MSo5iCC_eIQ&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=11&ab_channel=Nerchuko)
* [Sorting Contours using OpenCV](https://www.youtube.com/watch?v=_xLWW-MHatQ&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=12&ab_channel=Nerchuko)
* [Face and Eye Detection using Haar Cascades - Project](https://www.youtube.com/watch?v=s7LnEybbsjc&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=14&ab_channel=Nerchuko)
* [How to Blur Human Faces using OpenCV - Project](https://www.youtube.com/watch?v=40OwlAWf2YM&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=15&ab_channel=Nerchuko)
* [An idea about Object Detection and its algorithms](https://www.youtube.com/watch?v=cxOuwguNyDQ&list=PLVG0Zju2HPJcFHBda_gdEyLh-3yYfNahM&index=16&ab_channel=Nerchuko)

**Day 42:**

* [Artificial Neural Network - Theory](https://en.wikipedia.org/wiki/Artificial_neural_network)
* [Artificial Neural Network - Implementation](https://www.youtube.com/watch?v=CeP_oMkSOks&list=PLVG0Zju2HPJfs_YBHr1HG2Di_4CX2Valt&index=1&ab_channel=Nerchuko)
* [Car Purchase Amount Prediction (Part 1) - Project](https://www.youtube.com/watch?v=qR3_gYga2y0&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=4&ab_channel=Nerchuko)
* [Car Purchase Amount Prediction (Part 2) - Project](https://www.youtube.com/watch?v=gpcEeDUSPi4&list=PLVG0Zju2HPJeu6_Xomen5o7PCBcxK1__S&index=5&ab_channel=Nerchuko)

**Day 43:**

* [Convolution Neural Network - Theory](https://en.wikipedia.org/wiki/Convolutional_neural_network)
* [MNIST Image Classification using CNN - Project](https://www.youtube.com/watch?v=ajFbZgVn0iU&list=PLVG0Zju2HPJfs_YBHr1HG2Di_4CX2Valt&index=2&ab_channel=Nerchuko)
* [An idea about Transfer Learning](https://www.youtube.com/watch?v=ivQha7ZrDLk&list=PLVG0Zju2HPJfs_YBHr1HG2Di_4CX2Valt&index=4&ab_channel=Nerchuko)

**Day 44:**

* [Recurrent Neural Network - Theory](https://colah.github.io/posts/2015-08-Understanding-LSTMs/)
* [Google Stock Price Prediction using LSTM - Project](https://www.youtube.com/watch?v=SWWBMHqm2Iw&list=PLVG0Zju2HPJfs_YBHr1HG2Di_4CX2Valt&index=3&ab_channel=Nerchuko)

**Day 45:**

Finally, 45th day, hope you all covered the topics. Now start doing new projects and apply for internships and jobs.

**ALL THE BEST**