Evaluations:

Taylor Hosley:

Decision Tree Algorithm:

Machine learning algorithm they help predict, learn, analyze. There are three different types of machine learning which are unsupervised, supervised and reinforcement learning. A few problems in machine learning are regression, classification, clustering. His was a classification algorithm. The decision tree can do both classification and regression. Advantages of decision tree is that the are simple to interrupt, handlers numerical and categorical data, little data preparation. There is overfitting, low bias, and high variance. Decision tree has entropy which is the measure of randomness.

His presentation was pretty good. He went over the topic with a good explanation and mathematical concepts. He showed graph to help visualize the information. He could have explained the code implementation a little bit better but did a good job explaining the output. His presentation was designed well. The format looked nice and the structure had a nice order to it.

Ryan Kern:

Parallel Computing

Some problems need parallel computing. Some cons are that it can be difficult to debug, expensive in terms of hardware. Applications for parallel computing are solving large complex problems, AI, web searches engines, data mining, large data processing. He parallelized bubble sort and brick sort. In his example parallelized was slower because it created the threads which took longer than skipping to comparisons.

Ryan’s presentation was alright. He explained what parallelization very well. His project idea was simple and easy to understand since it used bubble sort and brick which we learned in early comp sci courses. He could have explained the implementation of his algorithm better. His parallel algorithm did not perform better and would have been informative to see an example where it did.

Cody Murrer:

Machine Learning:

A form of artificial intelligence, uses different type of data to create predictions, uses two different data sets to predict such as training and testing data set. Applications for machine learning are virtual assistants compute predictions, social media services, online customer support, predicting demand for a product. We use machine learning everyday such as self-driving cars, health care industries use help diagnosis patients, food industry services predict items to be ready. Four different types of machine learning algorithms such as supervised learning, semi supervised learning, unsupervised learning, reinforcement learning. He did linear regression which is a continuous regression algorithm that predicts data. It will create a trend line on a scatter plot to predicts future values. Can be applied to predicting stock prices.

One of the best presentations because of the sheer amount of information. Much of which was not read from the slides as well. His speaking was also clear and concise. When he went over the implementation, he went line by line which helped me understand what his code did. The design of the slides was pretty good. I liked how the format of slides related to tech.

Olivia Rorke:

Parallel Computing:

Implemented it on double ended selection sort. Typically, programs have a single thread, but parallel computing utilizes multiple threads. Used a library called OMP to implement the code. The idea is to take the min and max in the sort and place in correct positions for the sorting process. Eventually the array becomes sorted from each end towards the middle of an array until the entire array is sorted. Pro for parallel computing is it gives higher CPU utilization and solves large problems quicker. Some cons are consuming a lot of power, errors are harder to find, smaller problems using parallel are typically outperformed by the sequential algorithms.

Olivia’s presentation was pretty good. I like how she went back and forth from code to presentation to keep us attentive. She presented a lot of information and was able to clearly speak with no stuttering. The demo of her algorithm worked properly there were no bugs in the code. Her slide was also designed well.

Joshua Cobb:

Parallel Computing:

Josh decided to do parallel computing for linear search. It is a simultaneous way to solve problems in code. Some advantages are it can solve large complex problems, allow concurrency, and does it in less time. It is being used in web search engines, AI, math. Linear search sequentially cycles through array until a value is found. Implemented the parallel linear search using openMP. It executes the code in parallel through multithreading.

Josh’s presentation was alright. When he read his slide, it was clear, but it was word for word from the slides. The design of the slides was great, and the information had a flow and structure to it. The demo of the algorithm worked as well, and he explained the code in a understandable way.

Ethan Gray:

Parallel Computing:

Ethan did parallel computing for his project. Programs were written with a linear approach to them called serial computing. Parallel computing does thing simultaneously. It divides the instructions into discrete parts and executes them concurrently. Most to all computers utilize parallel computing in their hardware. The world around us isn’t serial so it is useful to know how to replicate in its concurrent nature to solve real world problems. The algorithm he parallelized was quick sort.

His presentation was better than most. I think he presented a lot of information and made it easy to understand. His slide was structured properly with the build up to the implementation of his algorithm. He also clearly spoke too. The demo of his algorithm mostly worked other than that he could not use large integers in hos variables to test the parallelized computing.

Samuel Gnahoui-David:

Machine Learning:

Sam did his machine learning algorithm on Naïve Bayes. Machine learning algorithms can be used on data analysis and AI. The Navie Bayes algorithm deals with probabilities and outcomes. It makes predictions based on the training data. Some pros are that it is not prone to overfitting, does not need much training data, and is fast. Some cons are it can be bias when calculating, might lose important information.

His presentation was presented pretty well. His organization was pretty good and progressed the information with layers that built on one another. The design of his slides was a bit confusing with a lot going on at times and his clarity of speak was a bit choppy. There were also grammatical errors throughout the slide that made it awkward to read. The demo of the algorithm work and he explained it that gave me some level of understanding.

Gabriel Corinthian:

Gabriel did his on parallel computing. He talked about the difference between serial and simultaneous computing. Serial is executing code line by line while simultaneous breaks it up and does it at the same time.

His presentation was good. He spoke clearly and I understood his information since it organized and progressed to his algorithm. The slides looked nice and were not confusing. When he did his code demo it did not work. Due to the fact he was trying to implement GUI the day before.

Noha Kelly: Did not present.