SIT384

Cyber Security Analytics

Portfolio Learning Summary Report

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Self-Assessment Details

The following checklists provide an overview of my self-assessment for this portfolio.

	Pass (D)	Credit (C)	Distinction (B)	High Distinction (A)
Self-Assessment				✓

(Tick ✓ the box with the grade you are applying for)

(Check that you have included the minimum required details. Tick these boxes and ones for higher grades as applies.)

Self-Assessment Statement

	Included
Learning Summary Report	✓
Pass tasks complete	✓

Minimum Pass Checklist

	Included
All Credit Tasks are Complete on OnTrack	✓

Minimum Credit Checklist (in addition to Pass Checklist)

	Included
Distinction tasks are Complete	✓

Minimum Distinction Checklist (in addition to Credit Checklist)

	Included
High Distinction tasks are Complete	✓

Minimum High Distinction Checklist (in addition to Distinction Checklist)

Declaration

I declare that this portfolio is my individual work. I have not copied from any other student's work or from any other source except where due acknowledgment is made explicitly in the text, nor has any part of this submission been written for me by another person.

Signature: **Fayzan Latif Soomro**

Portfolio Overview

This portfolio includes work that demonstrates that I have achieve all Unit Learning Outcomes for SIT384 to a **High Distinction** level for this portfolio.

Initially I started from scratch, after going through the Unit information I came to know that is this unit I am going to learn python language, Although I had a rough idea about python while I was doing my Introduction to programming language last year.

[Provide a brief justification for why you should receive the above grade… Write this for the assessment panel – tell them why you should get this grade.

For High Distinction: I did all required tasks for a High Distinction according to the Unit information i.e. Complete All Pass, Distinction and at least 1 High Distinction Task. Throughout my trimester I was asked to fix and resubmit couple of tasks during first two weeks as it was my first-time learning python programming language later, I was never asked to Fix and resubmit any of the tasks. Almost my every submission was signed off as complete in one go.

Reflection

The most important things I learnt:

There was a lot to learn in this unit, initially I learned to make some validation programs and some arithmetic programs. Moving ahead Supervised/Unsupervised Machine learning was introduced which taught me how to play with different type of big and small datasets, how to manipulate and update data, applying Machine Learning techniques/algorithms to potentially enhance the accuracy of the learnt models via selecting better parameters.

The things that helped me most were:

Weekly Practicals

Prescribed Textbook: Müller and Guido, 2017, Introduction to Machine Learning with Python: A Guide for Data Scientists, 1st
Ed, O'Reilly Media.

Unit staff was always available in hard times specially my tutor.

I found the following topics particularly challenging:

There is no particular topic which I found challenging as every concept was loud and clear after attending Lecture and practical's regularly However, I felt difficulty in using Matplotlib in start but later on when more Ontrack tasks were introduced and I kept on practicing I was good with using Matplotlib by then.

I found the following topics particularly interesting:

I found unsupervised learning algorithms interesting the reason behind this is there was a High Distinction task related to unsupervised learning in which i need to apply three unsupervised learning classification techniques to same data set to enhance and compare the accuracy of models in a report.

I feel I learnt these topics, concepts, and/or tools really well:

As mentioned above I found Matplotlib challenging in start, which made curious to learn it to the best standard I can. Matplotlib was almost used in ever task as it was the key requirement to visualize every possible outcome. I kept on working with Matplotlib, referring to the practical's and the textbook and now I am confident with using Matplotlib.

I still need to work on the following areas:

Although I have completed each and every Ontrack Task except 8.2HD because I had lack of time, I was working with my other units, though I don't think so I need to work on any particular topic from this unit, however I am not a python professional after achieving a HD in this unit hopefully. I should learn continually, there is always "one more thing" to learn!

This unit will help me in the future:

This unit was more like a building block to learn python programming language. However, python is the language of future, I can relate the concepts gained from this unit in future working with app development, web app or web development, game development, scientific computing, system administration, etc. python language is considered best

because of its wide range of features. Python can be used to write scripts used in ethical hacking.

If I did this unit again, I would do the following things differently:

The most important thing I want to do differently is time management, yet I submitted my every task before deadlines, and I was never late. Most of the time I submitted my tasks couple of hours before deadline which needs to be changed.

Other…:

'Never been late on submissions, always finished my tasks before time.'
Hoping to achieve High Distinction ☺