EMPIRE STATE UNIVERSITY

STUDENT NAME	ESC GPA	NYC GPA	ID NUMBER	DATE (semester)

COMPUTER SCIENCE with a focus on Machine Learning and Robotics

General Education - 30 credits

	COURSE	credits	semester	GRADE	EARNED CREDITS
	You must take these 6 courses = 18 credits				
1	Intro to College Reading and Writing	3			
2	Effective Reading & Writing	3			
3	Linear Algebra OR Calculus	3			
4	US History and Civic Engagement (e.g. The Civil War)	3			
5	Natural Science course (e.g. Physics, Electromagnetis	3			
6	Diversity course (e.g. Immigration, Sex & Gender, Soc	3			
	Select 2 of the following 5 areas = 6 credits				
1	Social Science course (e.g. Anthropology, Sociology, F	3			
2	World Languages	4	through student's HSD		5
3	World History & Global Awareness (e.g. Travel & Tour	3			
4	Humanities course (e.g. Philosophy, Literature, Poetry	3			
5	Arts course (e.g. Art History, Music, Theater, Painting,	3			
	Take 2 courses from any category = 6 credits				
	GenEd elective course 1	3			
	GenEd elective course 2	3			
			Total Credits Earned:		5

number of general education COURSES left to take: **9**

number of general education CREDITS left to take: 27

New York College Concentration Prerequisites

	COURSE	credits	semester	GRADE	EARNED CREDITS
1	Introduction to Computer Science with Python	3			
2	Discrete & Finite Mathematics	3			
3	Data Structures and Algorithms	3			
4	Intro to Robotics	3			
5	Operating Systems	3			
6	Intro to Object Oriented Programming: Java	3			
7	Intro to Data Science with Databases	3			
8	Human Computer Interaction (with focus on Sensors &	3			
9	Machine Learning	3			
10	System Analysis and Design	3			
11	AI & ML in Robotics	3			
12	Intro to Networks	3			
13	Intro to C/C++	3			
14	Probability and Statistics (prereq. Algebra)	3			
			Total Credits Earned:		0

number of **NYC** concentration COURSES left to take: **14**

number of **NYC** concentration CREDITS left to take: 42

Elective credits - RECOMMENDED

	COURSE	credits	semester	GRADE	EARNED CREDITS
1	Microprocessor System Design	3			
2	Quantitative Methods	3			
3	Internet of Things (IoT)	3			
4	Management Info Systems	3			
5	Natural Language Processing (NLP)	3			
6	elective excel software	3			
7	Org. Behaviour	4			
8	Big Data	3			
10	Principles of Management	3			
			Total Credits Earned:		0

number of **ELECTIVE** CREDITS left to take: **18**

number of **ELECTIVE** COURSES left to take: 6

Empire State College Concentration Courses - 32 credits

	COURSE	credits	semester	GRADE	EARNED CREDITS
1	Data Communications and Networking: Advanced	4			
2	Advanced Database Systems	4			
3	Advanced OOP Java	4			
4	INFT 3045 Social, Professional & Ethical Issues	4			
5	Computer Security	4			
6	Software Engineering	4			
7	Final Project in Computer Science	4			
	Electives				
	Artificial Intelligence	4			
	Design for Programming Languages	4			
	WEB Systems Dev. *(Database Systems)*	4			
	WEB Publishing w. HTML	4			
			Total Credits Earned:		0

number of **ESC** concentration COURSES left to take: **8**

number of **ESC** concentration CREDITS left to take: 32

CREDITS EARNED OF 124 REQUIRED:	**5**
CREDITS LEFT TO TAKE:	**119**