### AUDIT REPORT

Wan Shen Lim	LEVEL	CAMPUS	ADVISOR	CQPA	Spring '20 QPA	EXCEPTIONS
wanshenl	Senior	Pittsburgh	Mark Stehlik	3.66	3.80	0
PROGRAMS						
PHD in Computer Science (N BS in Computer Science Minor in Mathematical Scienc Minor in SCS Concentration in Minor in SCS Concentration in	es Computer Systems (No	Matching Program		ents)		
Taken: 43 courses (419 units)	Registered: 0 courses (0 units)	Remaining units)	g: 0 courses (C		Unmatched: 11 cours units)	es (121

### Last computed 2 hours ago

BS in Computer Science 0 remaining, 40 taken		QPA 3.74
Computer Science		
15-122 Principles of Imperative Computation (10 units)	Fall '16	А
15-150 Principles of Functional Programming (10 units)	Spring '17	А
15-210 Parallel and Sequential Data Structures and Algorithms (12 units)	Fall '17	В
xx-213 Introduction to Computer Systems (through 15-213 Introduction to Computer Systems (12 units))	Fall '17	А
15-251 Great Ideas in Theoretical Computer Science (12 units)	Spring '17	В
15-451 Algorithm Design and Analysis (12 units)	Spring '19	В
<ul> <li>Algorithms &amp; Complexity Elective (through 15-354 Computational Discrete Mathematics (12 units))</li> <li>*15-354 (Fall 2018, Grade: A, 12 units) will be prioritized</li> </ul>	Fall '18	А
Logics & Languages Elective (through 15-312 Foundations of Programming Languages (12 units))	Fall '18	В
Software Systems Elective (through 15-445 Database Systems (12 units))	Fall '18	А
<ul> <li>Applications Elective (through 15-780 Graduate Artificial Intelligence (12 units)) *15-780 (Spring 2020, Grade: A, 12 units) will be used to manually satisfy this requirement</li> </ul>	Spring '20	А
15-780 Graduate Artificial Intelligence (12 units)	Spring '20	А
Mathematics and Probability		
Two Semesters of Calculus		
21-120 Differential and Integral Calculus (10 units)	Fall '16	AP
21-122 Integration and Approximation (10 units)	Fall '16	AP
Concepts of Math (through 15-151 Mathematical Foundations for Computer Science (10 units))	Fall '16	В
Matrix/Linear Algebra (through 21-242 Matrix Theory (10 units))	Fall '16	А
Probability (through 15-359 Probability and Computing (12 units))	Spring '18	В
Technical Communication (through 15-300 Research and Innovation in Computer Science (9 units))	Fall '18	А
SCS Concentration (optional, can be used to satisfy the minor requirement)		
Humanities and Arts		
Writing (through 76-101 Interpretation and Argument (9 units))	Fall '16	А
Cognition, Choice and Behavior (through 80-180 Nature of Language (9 units))	Spring '18	А
Economic, Political and Social Institutions (through 73-100 Principles of Economics (9 units))	Spring '17	А
Cultural Analysis (through 82-273 Introduction to Japanese Language and Culture (9 units))	Fall '17	А
3 Humanities/Arts Electives *82-115 (Spring 2017, Grade: A, 6 units), 82-117 (Fall 2017, Grade: A, 6 units), 70-364 (Fall 2018, Grade: A, 9 units), 70-366 (Spring 2019, Grade: A, 6 units), 79-387 (Spring 2019, Grade: A, 6 units) will be used to manually satisfy this requirement		
82-115 Beginning Arabic for Oral Communication (6 units)	Spring '17	А
70-366 Intellectual Property and E-Commerce (6 units)	Spring '19	А
70-364 Business Law (9 units)	Fall '18	А
79-387 General Francisco Franco: Fascism and its Legacies in Spain (6 units)	Spring '19	А

82-117 Arabic Conversation & Dialect I (6 units)	Fall '17	А
Science and Engineering		
Four Sci/Eng, Any Dept		
33-120 Science and Science Fiction (9 units)	Spring '20	А
09-105 Introduction to Modern Chemistry I (10 units)	Fall '16	AP
02-261 Quantitative Cell and Molecular Biology Laboratory (9 units)	Spring '18	А
33-121 Physics I for Science Students (12 units)	Spring '17	А
Two Sci/Eng, Same Dept		
Two Sci/Eng, Same Dept Option 1		
33-120 Science and Science Fiction (9 units)	Spring '20	А
33-121 Physics I for Science Students (12 units)	Spring '17	А
Lab Requirement (through 02-261 Quantitative Cell and Molecular Biology Laboratory (9 units))	Spring '18	А
2 SCS Electives		
15-388 Practical Data Science (9 units)	Spring '18	А
15-591 Independent Study in Computer Science (9 units)	Spring '19	А
Freshman Immigration Course (through 15-128 Freshman Immigration Course (1 units))	Fall '16	А
CSW - Computing @ Carnegie Mellon (through 99-101 Computing @ Carnegie Mellon (3 units))	Fall '16	Р

## SCS Concentration (optional, can be used to satisfy the minor requirement): Computer

Systems 0 remaining, 4 taken

Computer Systems Concentration Requirements (51 units enrolled)		
List A Electives		
15-410 Operating System Design and Implementation (15 units)	Spring '20	А
15-418 Parallel Computer Architecture and Programming (12 units)	Fall '19	А
List B Electives		
15-440 Distributed Systems (12 units)	Spring '18	А
15-721 Database Systems (12 units)	Spring '19	А

# SCS Concentration (optional, can be used to satisfy the minor requirement): Algorithms and Complexity 0 remaining, 4 taken

Algorithms and Complexity Concentration Requirements		
Required Course		
15-455 Undergraduate Complexity Theory (9 units)	Fall '19	В
Elective Courses (36 units enrolled)		
15-354 Computational Discrete Mathematics (12 units)	Fall '18	А
15-857 Performance Modeling (12 units)	Fall '19	В
15-859CC Algorithms for Big Data (through 15-859 Special Topics in Theory: (12 units))	Fall '19	А

Minor in Mathematical Sciences 0 remaining, 6 taken		<b>QPA</b> 3.01
Requirements		
Concepts of Mathematics (through 15-151 Mathematical Foundations for Computer Science (10 units))	Fall '16	В
Discrete Mathematics (through 15-251 Great Ideas in Theoretical Computer Science (12 units))	Spring '17	В
Matrices (through 21-242 Matrix Theory (10 units))	Fall '16	А
Real Analysis (through 21-355 Principles of Real Analysis I (9 units))	Spring '19	С

Electives (18 units enrolled)		
21-301 Combinatorics (9 units)	Spring '20	В
Algebraic Structures (at most one) (through 21-373 Algebraic Structures (9 units))	Fall '17	В

## **Unmatched Courses**

15-051 Discrete Math Primer (1 units)	Fall '16	Р
15-090 Computer Science Practicum (3 units)	Summer '19	Р
15-112 Fundamentals of Programming and Computer Science (12 units)	Spring '13	TR
15-131 Great Practical Ideas for Computer Scientists (2 units)	Fall '16	А
15-996 Introductory Course for CS Doctoral Students (IC) (6 units)	Fall '20	*
15-997 Graduate Reading and Research (36 units)	Fall '20	*
15-997 Graduate Reading and Research (36 units)	Summer '20	3/4
21-268 Multidimensional Calculus (10 units)	Fall '17	В
36-201 Statistical Reasoning and Practice (9 units)	Fall '16	AP
69-102 Weight Training (3 units)	Spring '19	Р
98-317 Student Taught Courses (StuCo): Hype for Types (3 units)	Spring '18	Р