## Student: Mr. James T. Allan (1032252)

**Program:**  BS Computer Science (CS.BS)

**Catalog:**  C1920

**Anticipated
Completion Date:** 08/31/23

**E-Mail Address:**  s1032252@monmouth.edu

This academic audit *MUST* be used in conjunction with your curriculum chart, and regular meetings with your academic advisor(s) to track your progress towards program completion.

The number of required overall credits reflects the minimum number of credits needed to earn a degree a Monmouth University. Individual programs may require additional credits to earn your degree.

Courses which receive a transitory grade (i.e. 'S'atisfactory Progress, 'I'ncomplete) will not reflect in the requirement as completed until a final grade has been recorded.

Any discrepancies in this audit are not binding.

Advisor: Jiacun Wang
Class Level: Senior

## Program Summary: (In Progress)

|  | Required | Current Earned | Current Remaining | Anticipated Additional | Anticipated Remaining |
|---|---|---|---|---|---|
| **Institutional Credits:** | 32.00 | 86.00 | 0.00 | 12.00 | 0.00 |
| **Institutional GPA:** | 2.000 | 3.359 | Met |  |  |
| **Overall Credits:** | 120.00 | 146.00 | 0.00 | 12.00 | 0.00 |
| **Overall GPA:** | 2.000 | 3.359 | Met |  |  |

(*) Anticipates completion of in-progress and registered and planned courses

## Program Requirements:

### 1: Computer Science/Adv. Computing (CS.A.MAJ.OUT.19) (Pending completion of unfinished activity)

Credits Earned: 74        GPA Achieved/Needed: 3.114 / 2.100        Complete all 6 subrequirements:

#### A: Major (Pending completion of unfinished activity)

Computer Science/Advanced Computing Major Required Courses

Credits Earned: 36

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. CS-104 | Intro Problem Solving |  | 20/SP | A | 3 |  |
| 2. CS-175 | Intro Comp Sci I |  | 20/SP | B+ | 3 |  |

| Course | Title | Term | Grade | Credits | Notes |
|--------|-------|------|-------|---------|-------|
| 3. CS-175L | Intro Comp Sci I Lab | 20/SP | A | 1 | |
| 4. CS-176 | Intro Comp Sci II | 20/FA | B+ | 3 | |
| 5. CS-176L | Intro Comp Sci II Lab | 20/FA | C | 1 | |
| 6. CS-205 | Data Struct & Algorithms | 21/SP | B | 3 | |
| 7. CS-205L | Data Struc & Algor Lab | 21/SP | A | 1 | |
| 8. CS-286 | Comp Architect 1 | 21/FA | B | 3 | |
| 9. CS-310 | Adv Obj Orient Prog Design | 22/SP | A- | 3 | |
| 10. CS-325 | Softw Eng Concepts | 22/SP | B- | 3 | |
| 11. CS-432 | Database Systems | 21/FA | B | 3 | |
| 12. CS-438 | Operating Syst Analysis | 22/FA | A- | 3 | |
| 13. CS-492A | CS Senior Project A | 22/FA | A- | 3 | |
| 14. CS-492B | CS Senior Project B | 23/SP | | 3 | *IP |

## B: Major (Pending completion of unfinished activity)

Computer Science Electives - *Check Curriculum Chart for Course Exceptions*

Credits Earned: 9

### Electives: 400+ Level (Complete)

Take 3 Credits of Computer Science (CS) at the 400+ level

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. CS-450 | Cyber Security | | 22/FA | A | 3 | |

### Electives: 200+ Level (Pending completion of unfinished activity)

Take 6 Credits of Computer Science (CS) at the 200+ level

Credits Earned: 6

| Course | Title | Term | Grade | Credits | Notes |
|--------|-------|------|-------|---------|-------|
| 1. CS-337 | Enterprise Mobile Apps | 21/FA | C- | 3 | |
| 2. CS-371 | Scripting Languages | 23/SP | | 3 | *IP |

## C: Interdisciplinary (Pending completion of unfinished activity)

Credits Earned: 14

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. MA-125 | Calc Analy Geom 1 | | 20/SP | T | 4 | *TE |
| 2. MA-126 | Calc Analy Geom II | | 20/SP | B+ | 4 | |
| 3. MA-130 | Applied Discrete Math | | 20/FA | C | 3 | |
| 4. MA-220 | Prob & Stats I | | 23/SP | | 3 | *IP |

## D: Interdisciplinary (Complete)

GROUP 1:

Take 8 credits from ONE of the Following Groups:

GROUP A:
CE-111/CE-111L: General Chemistry I/Lab *AND*
CE-112/CE-112L: General Chemistry II/Lab
*OR*
GROUP B:

PH-211/PH-211L: General Physics with Calculus I/Lab *AND*
PH-212/PH-212L: General Physics with Calculus II/Lab
*OR*
GROUP C:
BY-109: Introduction to Biodiversity and Evolution *AND*
BY-110: Introduction to Cell and Molecular Biology

Credits Earned: 8

### GROUP 1B - Physics Grouping - 8 Credits (Complete)

Credits Earned: 8

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. PH-111 | Gen Physics Calc 1 | | 20/SP | T | 3 | *TE |
| 2. PH-111L | Lab Gen Phys Calc 1 | | 20/SP | T | 1 | *TE |
| 3. PH-112 | Gen Physics w/Calc 2 | | 20/SP | T | 3 | *TE |
| 4. PH-112L | Lab Gen Phys Calc 2 | | 20/SP | T | 1 | *TE |

### E: Interdisciplinary (Complete)

GROUP 2: Guided Electives

Take 4 Additional Credits (not taken above) from the Following Courses:

BY-109: Introduction to Biodiversity and Evolution
BY-111: Anatomy and Physiology I
BY-223: General Microbiology
CE-111 and CE-111L: General Chemistry I and Lab
CE-220 and CE-220L: Environmental Chemistry and Lab
CE-221 and CE-221L: Quantitative Analysis and Lab
CE-241 and CE-241L: Organic Chemistry I and Lab
PH-211 and PH-211L: General Physics with Calculus I and Lab

GROUP 2 - Guided Electives - 4 Credits

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. BY-109 | Intro Biodiverse Evol | | 22/SP | C+ | 4 | |

### F: Interdisciplinary (Pending completion of unfinished activity)

Take 3 Credits from the following courses:

PH-301: Modern Physics
PH-302: Theoretical Physics
BY-201: Introduction to Biotechnology
BY-205: Zoology
BY-214: Botany
BY-220: Environmental Biology and Policy
BY-221: Introduction to Global Sustainability
MA-221: Linear Algebra
MA-225: Calculus with Analytic Geometry III
MA-311: Differential Equations
MA-318: Combinatorics and Graph Theory
MA-320: Probability and Statistics II

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. BY-221 | Global Sustainability | | 23/SP | | 3 | *IP |

### 2: 20.MIN.GIS - Minor in Geographic Info. Systems (Complete)

Credits Earned: 15          GPA Achieved/Needed: 3.940 / 2.100          Complete both subrequirements:

Institutional Credits Earned/Anticipated/Reqd: 15.00 / 0.00 / 9.00

## A: Minor (Complete)

Minor in Geographic Information Systems

Credits Earned: 9

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. GIS-224 | Intro to GIS | | 20/FA | A | 3 | |
| 2. GIS-324 | Spatial Data | | 21/FA | A | 3 | |
| 3. GIS-325 | Spatial Analysis | | 21/SP | A | 3 | |

## B: Minor (Complete)

Take 6 Credits from the Following Courses:
GO-125: Maps and Mapping
GIS-235/HLS-235: GIS Applications in Homeland Security
GIS-335/HLS-335: Advanced GIS and Homeland Security
BY-251: Field Research Methods in Marine Science
GIS-336: Marine Applications of Geographic Info Systems
GIS-400: Research Methods in GIS
GIS-489: GIS Internship
GIS-499: GIS Independent Study

Credits Earned: 6

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. GIS-235 | GIS Appl in HLS | | 22/SP | A- | 3 | |
| 2. GO-125 | Maps and Mapping | | 22/FA | A | 3 | |

## 3: WT.CS - Writing Intensive Requirement (Complete)

TWO WRITING INTENSIVE COURSES IN COMPUTER SCIENCE WITH COURSE*TYPE = 'WT' (0 CRS.)

Credits Earned: 6

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. CS-325 | Softw Eng Concepts | | 22/SP | B- | 3 | |
| 2. CS-310 | Adv Obj Orient Prog Design | | 22/SP | A- | 3 | |

## 4: General Education: CD/GU or Language (CDGU2015) (Complete)

Credits Earned: 6          Complete 1 of 2 subrequirements:

## A: CD/GU Requirement (Complete)

Credits Earned: 6

### CULTURAL DIVERSITY (Complete)

Take 3 Credits from Courses Designated with Course*Type: CD

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. GS-225 | Intro Gender Studies | | 20/SP | T | 3 | *TE |

### GLOBAL UNDERSTANDING (Complete)

Take 3 Credits from Courses Designated with Course*Type: GU

| | | | | | |
|---|---|---|---|---|---|
| 1. SW-205 | Global Hum Ri & Soc Jus | | 20/FA | A | 3 |

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## 5: General Education Coursework (GE2019) (In progress)

Credits Earned: 40          Complete all 13 subrequirements:

### A: First Year Seminar (Complete)

*Waived for transfer students with a minimum of 18 transfer credits.

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. FY-101 | First Year Seminar | | 12/12/19 | | 0 | *TE |

### B: Reading & Writing (Complete)

Credits Earned: 6

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. EN-101 | College English 1 | | 20/SP | T | 3 | *TE |
| 2. EN-102 | College English 2 | | 20/SP | T | 3 | *TE |

### C: Mathematics (Complete)

Take 3 Credits from Mathematics (MA) *Except MA-050 or MA-101

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. MA-126 | Calc Analy Geom II | | 20/SP | B+ | 4 | |

### D: Natural Sciences (Complete)

Take 6 Credits from Biology (BY), Chemistry (CE), Physics (PH), Geology (GL), or Science (SC) *OR* Take GO-103

Credits Earned: 6

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. BY-103 | Environmental Science | | 20/FA | B- | 3 | |
| 2. PH-150 | Principles of Astronomy | | 21/SP | B | 3 | |

### E: Literature (Complete)

Take 3 Credits from courses designated with Course*Type = LIT

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. EN-212 | Lit of Oppression | | 21/SP | B+ | 3 | |

### F: Aesthetic/Creativity (Complete)

Take 3 Credits from Art (AR), Music (MU), Theatre (TH), or Dance (DA)

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. AR-101 | Art Appreciation | | 20/SP | A | 3 | |

## G: Technological Lit. (Complete)

Take 1 Course from Courses designated with Course*Type = TL

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. CS-104 | Intro Problem Solving | | 20/SP | A | 3 | |

## H: Reasoned Discourse (Complete)

Take 1 Course from Courses designated with Course*Type = RD

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. CS-492A | CS Senior Project A | | 22/FA | A- | 3 | |

## I: Historical (Complete)

Take 3 Credits from Courses designated with Course*Type = HS.SV

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. HS-105 | The Verdict of History | | 20/SP | A | 3 | |

## J: Social Sciences (Complete)

Take 3 Credits from Courses designated with Course*Type = SS.SV

Credits Earned: 3

## Course Type SS.SV (Complete)

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. GIS-224 | Intro to GIS | | 20/FA | A | 3 | |

## K: Historical/Soc. Sci. (Complete)

TAKE ONE: 3 CREDITS WITH COURSE*TYPE = HS.SV OR 3 CREDITS WITH COURSE*TYPE = SS.SV

Credits Earned: 3

## Course Type HS.SV (Complete)

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. HS-101 | West Civ World Persp 1 | | 20/SP | T | 3 | *TE |

## L: Interdisciplinary (Complete)

INTERDISCIPLINARY PERSPECTIVES:
Take 3 Credits from Courses designated with Course*Type = ISP

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|
| 1. PR-432 | Ethics Prf Sci Engineer | | 22/SP | A- | 3 | |

## M: Experiential Ed. (Not started)

Take 1 Course from Courses designated with Course*Type = EX

| Course | Title | Needed | Term | Grade | Credits | Notes |
|---|---|---|---|---|---|---|

## 6: 54 Minimum Credits At the 200+ Level (54.Credits) (Complete)

Take a Minimum of 54 Credits at the 200+ Level (54 CRS.)

Credits Earned: 56

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. SW-205 | Global Hum Ri & Soc Jus | | 20/FA | A | 3 | |
| 2. GIS-224 | Intro to GIS | | 20/FA | A | 3 | |
| 3. EN-212 | Lit of Oppression | | 21/SP | B+ | 3 | |
| 4. CS-205L | Data Struc & Algor Lab | | 21/SP | A | 1 | |
| 5. CS-205 | Data Struct & Algorithms | | 21/SP | B | 3 | |
| 6. GIS-325 | Spatial Analysis | | 21/SP | A | 3 | |
| 7. GIS-324 | Spatial Data | | 21/FA | A | 3 | |
| 8. CS-432 | Database Systems | | 21/FA | B | 3 | |
| 9. CS-337 | Enterprise Mobile Apps | | 21/FA | C- | 3 | |
| 10. CS-286 | Comp Architect 1 | | 21/FA | B | 3 | |
| 11. CS-325 | Softw Eng Concepts | | 22/SP | B- | 3 | |
| 12. GIS-235 | GIS Appl in HLS | | 22/SP | A- | 3 | |
| 13. PR-432 | Ethics Prf Sci Engineer | | 22/SP | A- | 3 | |
| 14. CS-310 | Adv Obj Orient Prog Design | | 22/SP | A- | 3 | |
| 15. CS-492A | CS Senior Project A | | 22/FA | A- | 3 | |
| 16. CS-450 | Cyber Security | | 22/FA | A | 3 | |
| 17. CS-438 | Operating Syst Analysis | | 22/FA | A- | 3 | |
| 18. GS-225 | Intro Gender Studies | | 20/SP | T | 3 | *TE |
| 19. FE-002 | 200 Lvl Free Elect | | 20/SP | T | 1 | *TE |
| 20. FE-002 | 200 Lvl Free Elect | | 20/SP | T | 3 | *TE |

## 7: 120 Minimum Credits to Graduate (120.CREDITS) (Complete)

Courses Listed Below Include Free Electives/Liberal Arts Electives Which May Be Required for this Program

Credits Earned: 120

| Course | Title | Needed | Term | Grade | Credits | Notes |
|--------|-------|--------|------|-------|---------|-------|
| 1. HS-105 | The Verdict of History | | 20/SP | A | 3 | |
| 2. AR-101 | Art Appreciation | | 20/SP | A | 3 | |
| 3. MA-126 | Calc Analy Geom II | | 20/SP | B+ | 4 | |
| 4. CS-104 | Intro Problem Solving | | 20/SP | A | 3 | |
| 5. CS-175L | Intro Comp Sci I Lab | | 20/SP | A | 1 | |
| 6. CS-175 | Intro Comp Sci I | | 20/SP | B+ | 3 | |
| 7. SW-205 | Global Hum Ri & Soc Jus | | 20/FA | A | 3 | |
| 8. BY-103 | Environmental Science | | 20/FA | B- | 3 | |
| 9. MA-130 | Applied Discrete Math | | 20/FA | C | 3 | |
| 10. GIS-224 | Intro to GIS | | 20/FA | A | 3 | |
| 11. CS-176L | Intro Comp Sci II Lab | | 20/FA | C | 1 | |
| 12. CS-176 | Intro Comp Sci II | | 20/FA | B+ | 3 | |
| 13. PH-150 | Principles of Astronomy | | 21/SP | B | 3 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 14. EN-212 | Lit of Oppression | 21/SP | B+ | 3 | |
| 15. CS-205L | Data Struc & Algor Lab | 21/SP | A | 1 | |
| 16. CS-205 | Data Struct & Algorithms | 21/SP | B | 3 | |
| 17. GIS-325 | Spatial Analysis | 21/SP | A | 3 | |
| 18. GIS-324 | Spatial Data | 21/FA | A | 3 | |
| 19. CS-432 | Database Systems | 21/FA | B | 3 | |
| 20. CS-337 | Enterprise Mobile Apps | 21/FA | C- | 3 | |
| 21. CS-286 | Comp Architect 1 | 21/FA | B | 3 | |
| 22. BY-109 | Intro Biodiverse Evol | 22/SP | C+ | 4 | |
| 23. CS-325 | Softw Eng Concepts | 22/SP | B- | 3 | |
| 24. GIS-235 | GIS Appl in HLS | 22/SP | A- | 3 | |
| 25. PR-432 | Ethics Prf Sci Engineer | 22/SP | A- | 3 | |
| 26. CS-310 | Adv Obj Orient Prog Design | 22/SP | A- | 3 | |
| 27. CS-492A | CS Senior Project A | 22/FA | A- | 3 | |
| 28. GO-125 | Maps and Mapping | 22/FA | A | 3 | |
| 29. CS-450 | Cyber Security | 22/FA | A | 3 | |
| 30. CS-438 | Operating Syst Analysis | 22/FA | A- | 3 | |
| 31. EN-101 | College English 1 | 20/SP | T | 3 | *TE |
| 32. MA-109 | Pre-Calculus Math | 20/SP | T | 4 | *TE |
| 33. FE-001 | 100 Lvl Free Elect | 20/SP | T | 3 | *TE |
| 34. FE-001 | 100 Lvl Free Elect | 20/SP | T | 1 | *TE |
| 35. CE-111L | Lab Gen Chem 1 | 20/SP | T | 1 | *TE |
| 36. AN-107 | Intro to Archaeology | 20/SP | T | 3 | *TE |
| 37. PH-111L | Lab Gen Phys Calc 1 | 20/SP | T | 1 | *TE |
| 38. PH-111 | Gen Physics Calc 1 | 20/SP | T | 3 | *TE |
| 39. FE-001 | 100 Lvl Free Elect | 20/SP | T | 3 | *TE |
| 40. MA-001 | 100 Lvl Math Elect | 20/SP | T | 1 | *TE |
| 41. FE-001 | 100 Lvl Free Elect | 20/SP | T | 3 | *TE |
| 42. PH-112 | Gen Physics w/Calc 2 | 20/SP | T | 3 | *TE |
| 43. GS-225 | Intro Gender Studies | 20/SP | T | 3 | *TE |
| 44. PH-112L | Lab Gen Phys Calc 2 | 20/SP | T | 1 | *TE |
| 45. FE-002 | 200 Lvl Free Elect | 20/SP | T | 1 | *TE |

**Other Courses:**

| Course | Title | Term | Grade | Registered Credits | Earned Credits | Notes |
|---|---|---|---|---|---|---|
| 1. FE-001 | 100 Lvl Free Elect | 20/SP | T | 1.00 | 1.00 | *TE |
| 2. FE-001 | 100 Lvl Free Elect | 20/SP | T | 1.00 | 1.00 | *TE |
| 3. FE-002 | 200 Lvl Free Elect | 20/SP | T | 1.00 | 1.00 | *TE |
| 4. PH-001 | 100 Lvl Physics Elect | 20/SP | T | 4.00 | 4.00 | *TE |
| 5. IT-100 | Information Technology | 20/SP | T | 3.00 | 3.00 | *TE |
| 6. GO-101 | Prin Human Geography | 20/SP | T | 3.00 | 3.00 | *TE |

(Credits in parentheses are anticipated earned)

**Notes:**

| | |
|---|---|
| *IP | In Progress |

*TE               Transfer Equivalency