Seth Conley

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A detail-oriented software developer who works well independently and in a team, and an adaptive learner who welcomes outside perspectives and alternative solutions.

Education

West Chester University of Pennsylvania — Expected Graduation May 2025
Bachelor of Science - Computer Science
Masters of Science – Computer Science — Expected September 20 25 – December 2026
GPA: 3.8

Academic Achievements:

- Dean's list 5 semesters
- Membership in the computer science honors society Upsilon Pi Epsilon
- Placed third in the West Chester University Programming Competition

Relevant Coursework

- Computer Science 1-3
  - Learned coding basics such as variable types, loops and methods/functions.
  - Developed an understanding of how to translate a solution from spoken language into code.
  - Created programs like a recursive depth-first maze solving algorithm that utilized the concepts we learned in class while applying clean code practices.
- Data Structures and Algorithms
  - Learned data structures like Stack, Queue, and Hash maps.
  - Learned what makes a program efficient through runtime analysis using Big O notation.
  - Learned what makes algorithms effective, efficient, and complete.
  - Wrote code implementing graph exploration algorithms.
- Software Engineering
  - Learned advanced Object-Oriented Programming principles.
  - Learned how to write readable code.
  - Eliminated redundant code with methods where appropriate.
  - Utilized the SOLID design principles.
  - Applied various design patterns to make code that is extendable yet not modifiable.
- Computer Systems
  - Learned about computing operations at the bit level.
  - Wrote C code that demonstrated how data is stored in memory and how it can be manipulated.
  - Studied assembly code.
  - Learned how CPUs function.
  - Discussed the Memory Hierarchy of RAM and CPUs.
- Big Data Engineering
  - Learned the MapReduce programming paradigm
  - Worked in spark using a Docker image provided by our professor to simulate multiple machines working in parallel.
  - Learned multiple methods of parallelizing statistical analysis.
  - Practiced developing programs by replicating algorithms using Python.
  - Wrote a technical paper analyzing a large dataset.
- Topics in Computer Security
  - Learned about cybersecurity on machines running the ARM instruction set.
  - Analyzed assembly code in order to write programs that took advantage of vulnerabilities specific to the ARM instruction set.
  - Utilized Stack Overflow attacks, Return Hijack Attacks, and Shellcode Attacks.
  - Learned how to use "gadgets" to execute a Return Oriented Programming Attack.
  - Worked with a group to complete a "Capture the Flag" style activity for the final project.

Projects

- Paper Presentation: *AI/ML for Network Security: The Emperor has no Clothes*
    - Presented a technical paper with a group to the class.
    - Portrayed the key points of the paper without unnecessary technical detail.
    - Received an A and feedback from the professor complementing the presentations clarity.
- Analysis of Steam Review Dataset using Apache Spark
    - Investigated 42 gigabyte dataset of Steam game reviews.
    - Performed Descriptive analysis of the dataset including average review percentage, genre-specific review averages and review trends over time.
    - Performed Technical analysis using a Frequent Itemset algorithm to find trends at the individual user level with regards to frequently grouped genres and games.

Experience

- Acme: Jan 2023-Present
    - Collaborated with coworkers to efficiently complete a variety of tasks.
    - Adapted to a dynamic environment that required different roles for each shift.
    - Communicated clearly and concisely with customers.

Technical Skills

- C, Java, Python
- Microsoft Excel, Word, PowerPoint
- Apache Spark
- SPSS Statistical Software

Activities

- West Chester University Computer Science Club
    - Discussed concepts with more experienced students and learned about additional ways to engage with the field.
- Placed third in the West Chester University Programming Competition
- Executive Board of West Chester Fencing Club