Hamza Ahmed

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U.S Citizen (Authorized to Work in the United States)

# Objective

Dedicated and highly motivated Computer Science student seeking opportunities to leverage academic knowledge, programming skills, and practical experience in software engineering and data science roles. Committed to continuous learning and professional growth in the technology industry.

# Education

Currently Pursuing: Bachelor of Science in Computer Science   
University of North Carolina at Greensboro, Greensboro, NC (Expected Graduation: May 2026)  
- Concentration: Data Science and Big Data  
- Minors: Information Technology and Business  
- Dean’s List: Fall 2023  
- Accepted into Accelerated Master’s Program (AMP) (Will Pursue a Master’s Upon completion of Bachelors)

-GPA: 3.81

Associate in Arts  
Guilford Technical Community College, Greensboro, NC (Graduated: May 2023)  
GPA: 4.0  
- President's List: Spring 2023

# Relevant Coursework Knowledge

- Graphical Displays & Numerical Summaries.

- Statistical Tools for Variable Associations.

- Algorithm Analysis & Complexity.

- JAVA Programming: Syntax, OOP Techniques.

- Discrete Structures, Logic, & Computability.

- Data Representation & Decimal Conversions.

- Assembly Language & Elementary Data Structures.

- Divide-and-Conquer Algorithms & Dynamic Programming.

- Tree & Graph Representation, Traversals.

- Process Structure, Memory Management.

- Parallel Processing & Network Communication.

- Basic Security Principles, VMs, & Containers.

- Demonstrate knowledge of principles and terminology of the field of Software Engineering.

- Demonstrate knowledge of object-oriented modeling techniques (UML).

- Apply knowledge in 1-2 to the requirements, analysis, design, implementation, and testing of a software system in a team project; and present project deliverables in written form.

- Demonstrate knowledge of software teams and software engineering ethics.

- Demonstrate knowledge of software evaluation.

- Apply the object-oriented programming concepts of object composition, inheritance and polymorphism.

- Design abstract data types and interfaces.

- Implement sequential abstract data types using both array and linked data.

- Describe characteristics of elementary searching and sorting algorithms.

- Implement recursive solutions to common computing problems.

- Evaluate algorithm performance using asymptotic analysis.

- Demonstrate a mastery of elementary fundamental algorithms and abstraction.

- Demonstrate an understanding of the JAVA programming language, including analyzing problems, designing solutions, implementing basic JAVA syntax, demonstrating use of top-down programming, assignment statements, decision structures, looping structures, object-oriented techniques, functions, and arrays.

- Program in a team (partnered) environment.

# Skills

Programming Languages:

- Python: Intermediate  
- Java: Intermediate  
- HTML, CSS, JavaScript: Beginner  
- Assembly: Beginner  
- C, C#, C++: Beginner  
- R: Intermediate

Software & Tools:

- RStudio, Visual Studio, IntelliJ, PyCharm  
- Microsoft Word, Excel, PowerPoint  
- POSTMAN, NetBeans, Visual Studio Code

Industry Credentials:

- Microsoft Word, Word Expert, PowerPoint, Excel  
- CompTIA IT Fundamentals  
- PCEP – Certified Entry-level Python Programmer  
- Certified Nursing Assistant

# Experience

Computer Science Tutor  
University of North Carolina at Greensboro, Greensboro, NC

- Enhanced students’ understanding of complex CS concepts, fostering academic growth and boosting confidence in problem-solving abilities.  
- Analyzed individual learning styles to tailor tutoring approaches, resulting in improved comprehension and academic performance.  
- Created a supportive learning environment encouraging students to overcome challenges and develop critical thinking skills.

Volunteer Worker  
High Point Public Library, High Point, NC

- Contributed 95.5 hours of service.  
- Responsible for delivering, managing, and shelving requested materials.  
- Improved communication skills, handled constructive criticism, and developed a productive work ethic.

# Projects

- CRUD MVC App: Developed using JPA, MySQL (via phpMyAdmin), and ThymeLeaf. https://github.com/hamza890890/FINALCRUDAPP

- Snake Game: Created in Java with audio capability from JavaFX; currently working on a Python version using Tkinter. https://github.com/hamza890890/snakegame

- Tic-Tac-Toe Game: Developed in Java. https://github.com/hamza890890/tictactoe

- Personal Website: Currently developing a simple personal website to practice coding skills.

- Social Media Project: Contributed to a software engineering project utilizing both front-end and back-end technologies, collaborating with two group mates. https://github.com/AresWacky/GridSocial

- These simple projects are a reminder to me of how fun programming can be, especially when I’m drowning in theory and abstraction.

# Additional Information

- Strong communication skills; not afraid to seek guidance.  
- Passionate about continuous learning and exploration.  
- Committed to refining programming skills and exploring new avenues in web development, database management, and data science.  
- Experience with graphics and sound libraries in Java.  
- Basic experience with GUI development and assembly/machine language.  
- Actively learning C, C#, C++, and HTML.  
- Basic knowledge and experience with GitHub.  
- Always willing to learn new languages, concepts, and skills.

# Future Career Plans

- Data Scientist: Eager to apply advanced statistical methods and machine learning algorithms to analyze large datasets and uncover insights that can solve real-world problems.  
- Data Analyst: Excited to turn raw data into meaningful insights to help organizations make data-driven decisions.  
- Full Stack Developer: Thrives on working across the entire software development lifecycle to build dynamic and responsive web applications.  
- Network Security Engineer: Passionate about cybersecurity, with a focus on network architecture, encryption, and intrusion detection.

-Software Engineer: I am passionate about designing and developing robust software solutions that solve complex problems and enhance user experiences. With a strong foundation in programming languages, algorithms, and software engineering principles, I am eager to contribute to the creation of scalable and efficient applications.

# Fun Facts

- Enjoys exercise, video gaming, violin practice, and coding projects during leisure time.  
- Loves traveling and meeting new people.  
- While I have been traumatized in the past when it comes to group projects and those around me letting me down, I love working with other people who are as enthusiastic about the work as I am. It creates a wonderful and unique sense of fulfillment that I do not get otherwise.