# Emily D. Black

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## PROFESSIONAL PROFILE

I am a passionate, authentic, curious, and accountable Computer Science student who is pursuing internship opportunities and/or entry-level positions within the field of technology, specifically data analytics, to apply theoretical knowledge in practical settings, develop valuable industry experience, and contribute to impactful projects.

## EDUCATION

Southern New Hampshire University, Manchester, New Hampshire        December 2025 (Anticipated)
**Bachelor of Science in Computer Science, Concentration in Data Analysis**
- GPA: 3.9, President's List (5x), Honor Roll (15x), National Society for Leadership and Success (NSLS)
- **Related Coursework:** Intro to Structured Database Environments | Intro to Scripting | Programming Languages | Applied Statistics for STEM I & II | Emerging Technologies & Big Data | Data Analysis Techniques | Data Validation: Quality & Cleaning

Guilford Technical Community College, Jamestown, North Carolina        July 2013
**Associate of Applied Science in Culinary Technology**
- GPA: 3.13

## CORE COMPETENCIES & CERTIFICATIONS

**Platforms**: Windows, macOS
**Languages**: SQL, Python, Java, C++, R, HTML, CSS.
**Tools**: Microsoft Office Suite (Word, Excel, PowerPoint, Outlook), Power BI, Slack
**Certifications:** Foundations of Leadership (NSLS), Orientation & Leadership Training (NSLS), Power BI: Dashboard for Beginners (LinkedIn), Data Analytics: Dashboards vs. Data Stories (LinkedIn)

## ACADEMIC PROJECTS

### Exploring NBA Team Performance with Python
Applied Python (pandas, matplotlib, seaborn) to clean, explore, and visualize historical NBA data. Conducted descriptive statistical analyses and generated confidence intervals to uncover scoring trends, home vs. away performance differences, and changes in team skill over time. This exploratory analysis laid the foundation for subsequent modeling projects.

### Hypothesis Testing for NBA Team Performance
Performed hypothesis testing using Python (pandas, scipy) to evaluate claims about NBA team performance, including population means, proportions, and differences of means. Applied statistical inference to determine the significance of observed differences in scoring and skill levels. The results supported data-informed decision-making grounded in statistical evidence.

### Predicting NBA Wins Using Regression Models
Developed and validated simple and multiple linear regression models in Python (pandas, statsmodels, matplotlib) to predict NBA regular-season wins based on performance metrics. Evaluated model fit using F-tests, $R^2$, and residual diagnostics, and interpreted coefficients to identify key performance drivers. This project demonstrated the application of statistical modeling for predictive sports analytics.

### Modeling Housing Prices with Advanced Regression
Built first-order, second-order, and nested multiple regression models in Python (pandas, statsmodels, matplotlib) to analyze Seattle housing data. Incorporated dummy variables, quadratic terms, and interaction effects to capture complex relationships between home features, neighborhood characteristics, and sale prices. The final model achieved strong predictive performance, explaining over 80% of price variability.

**Heart Disease Risk Prediction with Machine Learning**
Developed multiple logistic regression models in Python (pandas, statsmodels, scikit-learn) to predict heart disease risk using demographic and clinical indicators, incorporating interaction and quadratic terms to improve model accuracy. Built and evaluated random forest classification and regression models, comparing performance using accuracy, AUC, precision–recall, and overfitting behavior. The analysis demonstrated how statistical and machine learning methods can support early detection and clinical decision-making.

## PROFESSIONAL EXPERIENCE

Davidson County Government, Senior Services Department (Lexington, NC)          August 2021-March 2024
**Administrative Assistant**
- Supported the Senior Services Director by coordinating and participating in all board, committee, and departmental meetings, meticulously documenting and transcribing minutes to ensure accurate records and actionable follow-up items.
- Served as the HR Liaison, Safety Coordinator, and Staff Special Events Coordinator for the Senior Services Department, strengthening departmental operations and ensuring seamless service delivery through proactive support and reliable coverage during staff absences.

First Bank (Winston Salem, NC)          January 2016-August 2021
**Teller**
- Executed teller and vault transactions and audits with precision while opening, closing, and maintaining customer accounts.
- Recognized with the Outstanding Teller Award twice for exceptional performance and service.

Chick-fil-A (Winston Salem, NC)          August 2012-January 2016
**Cashier/Prep Cook**
- Prepared a variety of cold food items and provided cross-functional support across kitchen operations.
- Served as drive-thru and front-counter cashier and expeditor to deliver fast, accurate, and high-quality service.