# **Mohamed Sharif**

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## **EDUCATION**

# • Georgia State University

Bachelor of Science in Computer Science

Atlanta, GA Expected Spring 2026

## Relevant Courses

Data Structures & Algorithms, Object Oriented Programming, Software Development, System Design, Operating Systems, Cloud Computing, Computer Architecture & Assembly, Data Mining, Calculus I & II, Linear Algebra, Probability & Statistics, Discrete Mathematics

## • Academic Achievements

32 ACT score, 2020 State Farm Scholarship, 2023 Associates of Science in Computer Science, 2x Principles List, 2022 Programming Club Vice President, 2026 Software Capstone Project

## **SKILLS**

- Languages & Frameworks: Python, Java, C, C++, Rust, JavaScript, TypeScript, HTML, CSS, Tailwind, Tauri, React, Node.js, FastAPI, Django
- Databases & Tools: PostgreSQL, MongoDB, MySQL, Git, AWS, Azure, Docker, Kubernetes, Bash, LangChain, Cursor, Figma, Notion, Microsoft Office
- Data: R Studio, Excel, Apache Spark & PySpark, PyTorch, TensorFlow, Databricks, Tableau, Power BI, Matplotlib, Pandas, NumPy, Scikit-Learn
- Concepts: Web development, Version Control, APIs, Algorithm Design, Database Optimization, SEO, Wireframing, AI Integration, Machine Learning, Data Visualization, Data Pipelines

# **EXPERIENCE**

## Data Engineer Intern

District Attorney's Office for Dekalb County

Decatur, GA August 2025 – Present

- Engineered **automated Python scripts** to extract and clean PDF case data, **reducing manual data entry by 50%** and ensuring consistent formatting across multiple datasets.
- **Designed SQL queries** to examine historic criminal data for supporting **predictive models** in crime pattern analysis and understanding trends.
- Used **Tableau and Matplotlib** to visualize prosecution trends, enabling prosecutors to **identify key risk factors** and **improve data-driven strategy sessions**.
- Enhanced intelligence-based prosecution strategies using data pipelines and reporting workflows, potentially increasing guilty verdicts by 17%.

## **PROJECTS**

• Code Editor Application: github.com/4Sharif/Context

Tech Stack: React, Node.js, Firebase

- Designed for code editing with real-time collaboration. Ideal for groups of people that need a shared coding environment without an IDE.
- Main features are **document sharing**, **version control**, **and user authentication**. Support for multiple programming languages with a **functional compiler**.
- Dependencies include **Monaco editor** (syntax highlighting), **Judge0** (compiler support), **Axios** (API requests), **Jest** (testing), and **EmailJS** (collaboration).
- NBA Player Value Model: github.com/4Sharif/PER-Prediction-Model

Tech Stack: Excel, Python, Machine Learning

- Built to estimate NBA player efficiency ratings (PER) using real statistics. Helps fans and analysts understand player value based on performance metrics. Includes an **interactive program** for testing.
- Created an **11-year dataset** with **21 features**. Underwent a preprocessing phase, where the data was cleaned and transformed for machine learning. The dataset's size was **reduced by 23%**.
- Split data into 80% training and 20% testing subsets. After applying linear regression, the model achieved over a 95% R<sup>2</sup> score. Feature importance analysis ranked the most impactful metrics.