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 Highlights

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

- Served as the **lead engineering intern** responsible for automating case data workflow. Built **Python ETL pipelines** to standardize data, **cutting manual entry time by 50%** and ensuring uniform, formatted datasets.
- Leveraged **SQL** to execute optimized queries that extracted and structured historic criminal data, supporting the development of **predictive models** for identifying emerging crime trends across multiple the county.
- Use **Tableau** and **Matplotlib** to visualize large-scale prosecution datasets, **transforming raw records into actionable insights** that helped prosecutors detect high-risk regions and allocate resources effectively.
- Enhanced intelligence-based prosecution strategies by developing automated data pipelines and reporting workflows, contributing to a projected 17% increase in successful verdicts.

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% R² score. Feature importance analysis ranked the most impactful metrics.