James E. Sweat III

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EDUCATION

University of Virginia (UVA) School of Arts and Sciences - Charlottesville, VA

BA in Computer Science with a minor in Data Science, May 2025

Warwick High School (WHS) International Baccalaureate Program - Newport News, VA

International Baccalaureate Diploma, June 2020

SKILLS/LANGUAGES

- Programming & Database Management: Python, Java, C/C++, JavaScript, SQL, Bash, MongoDB, MySQL, SQLite
- Tools & Libraries: Excel, Git/GitHub, Pandas, NumPy, TensorFlow, PyTorch, Gradle, BeautifulSoup, Selenium, Postman
- DevOps & Cloud: AWS (EC2, S3, Lambda, RDS), Microsoft Azure, IaaS, Docker, Kubernetes, JIRA, Linux/Unix Systems, Auth0

WORK EXPERIENCE

SuccessKPI Associate Analytics Consultant

Summer 2023

- Conducted a speech study using SuccessKPI platform to improve natural language processing of customer interactions.
- Implemented customer-focused AWS Lambda functions for data cleaning, enhancing analysis within SuccessKPI software.
- Utilized AWS S3 for data storage, simplifying data access and retrieval for our customers in the SuccessKPI platform.
- Designed Python and SQL scripts optimized for AWS Lambda functions for data processing tasks within the SuccessKPI platform.

Hilton Customer Experience Data Analyst

May 2022 – August 2022

- Integrated data-driven performance metrics and predictive analytics to identify market trends and optimize resource allocation.
- Analyzed guest feedback to uncover usability issues and inform the design of targeted digital experience improvements.
- Collaborated with cross-functional teams to streamline workflows and enhance internal communication.
- Optimized reservation management and guest data tracking using internal hotel software.

Marriott Data Analyst

May 2021 - August 2021

- Provided data analysis services for Marriott, a global leader in hospitality, driving strategic insights and improvements.
- Created interactive dashboards in Tableau to monitor key operational metrics and guest satisfaction trends.
- Developed Python scripts using Pandas and matplotlib to track performance trends, revenue, and customer behaviors.
- Generated actionable insights that enhanced business strategies and improved overall operational efficiency.

TECHNICAL PROJECTS

Glassdoor Reviews Chatbot Project

Spring 2025

- Developed a chatbot-style tool that summarizes company workplace culture based on real employee reviews from Glassdoor.
- Designed the system to process a user's natural language query and return relevant cultural insights.
- Utilized Python, MongoDB, and large language model-generated embeddings to cluster and analyze review content.
- Enabled users to explore organizational culture trends interactively, supporting informed decision-making for job seekers.

Elliptic Curve Digital Signature Algorithm

Spring 2025

- Developed a custom implementation of ECDSA using the secp256k1 curve for cryptographic signing and verification.
- Designed and implemented key generation, message signing, and signature verification functions in Python and Shell.
- Ensured efficient public-private key cryptography using modular arithmetic and elliptic curve operations.
- Designed modular functions to support user ID retrieval, key generation, signing, and verification.

ETL Pipeline

Fall 2025

- Designed end-to-end ETL data pipeline, seamlessly integrating data from MongoDB, MySQL, and local file system sources.
- Demonstrated expertise in data transformation, ensuring smooth synchronization between MongoDB and MySQL databases.
- Utilized Python and SQL to write custom ETL scripts and queries, optimizing data processing and reducing execution times.
- Ensured seamless data synchronization across MongoDB and MySQL to maintain data consistency and enable unified analytics.

Data Analyst

Freelance (Present)

- Designed and implemented Python scripts utilizing Pandas and Matplotlib to efficiently collect, process, and visualize sales data.
- Conducted in-depth analysis of business data, generating actionable insights that informed strategic decision-making and increased revenue growth.