

GREGORY JEFFREY WILLS

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WORK EXPERIENCE

Deloitte, Arlington, VA

Software Engineer, September 2019 – Present

- Lead development and optimization of an integrated streaming and data lake solution for analytic use cases, focusing on building extensible applications and a flexible architecture to operate in a multi-cloud – AWS and GCP – environment
- Managed development roadmap and technical implementation of application refactoring to utilize cloud native services to reduce cost of data storage and increase query execution speed
- Adapted big data streaming application to use cloud native services in 2-week pilot program, handling 15B events/day
- Developed solution to enhance monitoring of streaming data via InfluxDB and Grafana, setting up dashboards to create a real-time view of the system on the scale of millions of records per second
- Designed event-based external data source streaming ingestion applications to provide continuous data by utilizing a containerization layer, eliminating manual data gathering for data analysts
- Transformed daily analytics into a continuous event-driven solution by elevating batch platform to streaming platform
- Built Flask REST API for submitting SQL queries to a Redis PubSub queue for execution
- Transformed manual cron execution of events to orchestrated asynchronous execution using Apache Airflow to enhance extensibility and scalability of analytic workflows
- Architected secure web application that takes raw data and generates templated client reports, reducing report creation time by 50%
- Delivered tailored demos for developers, architects, data analysts, and client engagements leaders that highlighted the lower cost, reduced operational overhead, and increased performance of the redesigned cloud analytical environment

Tenable Network Security, Columbia, MD

Software Engineering Intern, June – August 2018

- Developed a debug report application using Flask and Jinja2 to reduce time to investigate bugs for support engineers
- Improved python automated testing framework by writing fixture to facilitate speed of nightly runs
- Implemented debug script for both Windows batch file and Linux shell script on the team's project

RELEVANT PROJECTS

Database Management System (<https://github.com/gjw13/Database-Management-System>)

Engineer, Spring 2019

- Created a database management system in Python with the ability to define, manipulate, store, and join data

Pseudo Shell (<https://github.com/gjw13/PseudoShell>)

Engineer, March 2018

- Worked with C language to design a simple shell that replicates some of the basic features of a traditional shell
- Implemented the ability for piping to allow sequences of processes to communicate using commands such as fork and execv

APPLICABLE COURSES AND SKILLS

- Languages: Python, Scala, C++, and R
- Technologies: Spark, Hadoop, Kafka, Airflow, Linux, Git, Docker, AWS, GCP, Grafana, InfluxDB, Looker, Flask, Django
- Management: JIRA, Confluence, Bitbucket, Azure DevOps, Github Enterprise, Agile, Scrum, Kanban

EDUCATION

Georgetown University, Washington, DC – May 2019

Major: B.S. Computer Science, Minor: Business Administration

PROFESSIONAL CERTIFICATIONS

- AWS Solutions Architect - Associate

PUBLICATIONS

Author of *Plugged In: How AI Will Enhance an Evolving Sports World*

Author, published April 2018

- Interviewed experts in fields of Artificial Intelligence and professional sports to research the intersection of both fields
- Crafted a manuscript, designed a cover, gained endorsement quotes, and marketed the book before and after publication