Joseph F. Dyer

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Skills Summary

Programming Languages: Javascript, SQL, Python, Java ,C, C+

Operating Systems: Ubuntu, Centos, Mac OS, Windows 7, 8 and 10

Tools and Frameworks: Git, Angular, VueJS, ROS, Jupyter and Zeppelin Notebooks, Spark, Matlab, Docker, Kubernetes, Arduino, MongoDB, Postgres, MySQL, Microsoft SQL Server, Web Components Neo4j, Pentaho Data Integration

AWS Tools: Glue, Redshift, SageMaker, S3, EC2, RDS

Education

B.S in Computer Science from Virginia Tech May 2021

GPA: 3.81, Honors: Phi Beta Kappa, summa cum laude

Work Experience

Intermediate Software Systems Engineer- MITRE, June 2021 - Present

- Led small development team effort for internal tool for evaluating development best practices.
- Utilized Java and Postgres for backend development
- Used VueJS and Angular, and React frameworks for frontend development and basic frontend design.
- Worked with neo4j, postgres, mongodb and mySQL databases for backend development.
- Dockerized simple applications and utilized docker for development
- Utilized Pentaho Data Integration and Python for ETL and data analytics
- Built and optimized stored procedures and designed database tables in Microsoft SQL Server
- Built and explored tools for modern web components to create standardized web components across an organization.

Teaching Assistant - Virginia Tech August 2020- May 2021

- Assisted Students in understanding concepts and projects for an Advanced Data Structures and Algorithms Course.

Software Engineering Intern – MITRE, May 2018- August 2020

May 2020-August 2020

- Wrote data transformation scripts in python in support of a COVID-19 decision dashboard.
- Developed backend support for multiple features of an application using NodeJS, MongoDB and AWS with Agile methodologies.

May 2019-September 2019, December 2019-January 2020

- Built and tested hybrid AWS and On-Prem environments and wrote utility libraries in python for data analytics in these environments.
- Wrote Apache Spark ETL scripts with AWS Glue to process raw data in S3 and push results to Redshift.
- Researched different technology alternatives in this environment for a sponsor deliverable Whitepaper.

December-January 2018/2019

- Wrote a ROS driver in C++ for a rangefinder to use for robotic systems.
- Added filtration methods to remove erroneous data points from a ToF Camera.

May-August 2018

- Responsible for integration and customization of various ROS-based packages, using C++, to implement SLAM, exploration, and Navigation for a custom robot.
- Stress tested an operational tool by developing scripts to generate load using python and analyzing resulting throughput and memory usage.