

Joseph F. Dyer

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PROFILE	Senior Full-Stack Software Engineer with 4+ years of experience building scalable backend and web systems, specializing in distributed architectures, cloud-native services, and performance-critical applications.	
EDUCATION	<i>B.S. in Computer Science, Virginia Tech</i> GPA: 3.81 • Honors: Summa Cum Laude, Phi Beta Kappa	May 2021
EXPERIENCE	<i>Senior Software Engineer, Capital One</i> <ul style="list-style-type: none">Designed and developed backend components supporting an ACH redemption option for card rewards, enabling direct deposit of points through event-driven services built with Golang, AWS Lambda, SQS, and DynamoDB.Architected an idempotency strategy using DynamoDB to support active-active processing, prevent race conditions, and improve resiliency, establishing a pattern applicable to other redemption flows.Developed performance testing scripts and collaborated with a working group to identify bottlenecks, improving system throughput and reliability.Proactively surfaced and fixed critical issues during E2E and performance testing, improving overall system stability and release readiness.	Mclean, VA • June 2025–Present
	<i>Intermediate Software Engineer, The MITRE Corporation</i> <ul style="list-style-type: none">Led design and development of a 3-person team for an internal DevSecOps evaluation tool that informed a Sponsor's contract award decision.Built reusable web components to streamline front-end development and ensure compliance with federal design standards across a Sponsor's organization.Built full-stack MVP dashboards using Angular, Vue.js, Flask, and Express to demonstrate research capabilities and support Sponsor funding decisions.Used Pentaho, Python, and SQL to automate ETL processes for data analytics reporting, reducing manual effort and saving time for Sponsors.	Mclean, VA • May 2021–June 2025
	<i>Teaching Assistant (DSA), Virginia Tech</i> <ul style="list-style-type: none">Held office hours to explain complex algorithmic concepts and visually demonstrate advanced data structures to students.Assisted students in debugging and understanding challenging algorithm implementations through hands-on guidance.Evaluated student projects, focusing on algorithmic correctness, efficiency, and conceptual understanding.	Blacksburg, VA • Aug 2020–May 2021
	<i>Software Engineering Intern, The MITRE Corporation</i> <ul style="list-style-type: none">Delivered software enhancements that enabled sponsor collaboration on new user-facing capabilities, earning recognition for efficiency. (2020)Independently delivered AWS-based ETL solutions and contributed technical insights to a whitepaper on Cloud vs. Hybrid analytics solutions. (2019)Used Python, Pandas, and NumPy in Jupyter Notebooks to analyze large datasets and prepare data for modeling. (2019)Led a team of interns in stress testing an operational tool using Python to generate performance metrics for a sponsor deliverable. (2018)	Mclean, VA • Summers 2018–2020
SKILLS	Programming: Python, JavaScript, Golang, SQL, Java, C++, C Frameworks: Angular, Vue.js, Express, Flask Cloud/AWS: S3, Glue, SageMaker, Redshift, EC2, Lambda Databases: PostgreSQL, Microsoft SQL Server, MySQL, Neo4j, MongoDB Tools: Git, Gitlab, Pentaho Data Integration, Jira, Docker, Kubernetes AI/ML: Pandas, NumPy, Jupyter Notebooks, PySpark	