

# Patrick Young

Technical Lead • Software Engineer • Data Architect  
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## WORK EXPERIENCE

### TECHNICAL LEAD, GS-14

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

July 2023 — July 2025 | Hampton, VA

As the Technical Lead of NASA Data & Analytics Services, I led the architecture, implementation, and adoption of NASA's enterprise data platforms to drive Agency-wide data modernization, data governance, scalable data analytics, and AI development in business- and mission-critical environments.

- Designed and led implementation of NASA's Enterprise Data Platform built with **AWS, Databricks, Airflow, Kubernetes**, and **Entra ID (Active Directory)** to enable the enterprise data mesh, zero-trust data-based access control, scalable data product development, and consolidation of data silos across mission directorates and business groups.
- Managed parallel Agile teams of up to 30 platform engineers, data analysts, analysts, and data scientists; implemented **DevSecOps** practices including test-driven development, infrastructure-as-code (IaC), peer code reviews, continuous delivery, incident management, and compliance automation.
- Worked with the Agency's Chief Data Officer to champion the NASA Data & Analytics Center of Excellence, promoting modern **DevSecOps** principles, data literacy, and a sustainable, collaborative data culture across the Agency.
- Served as the Data & Analytics representative on NASA's IT Technical Review Board, ensuring enterprise software initiatives aligned with the NASA Data Strategy, long-term architectural goals, and regulatory requirements.
- Provided professional consulting services to mission and operational teams building data products on the Enterprise Data Platform, improving internal knowledge sharing, data reliability and trust, pipeline performance, cost efficiency, documentation quality, and on-boarding time.

### SOFTWARE ENGINEER, Associate

BOOZ ALLEN HAMILTON

Sept 2020 — Aug 2023 | Fort Eustis, VA

As a lead software engineer and deputy project manager supporting Army T2COM G2, I developed full-stack data management, discovery, analytics, and visualization systems and threat-actor network analysis tools, accelerating the creation of training and doctrine research publications.

- Designed and built T2COM G2's Training & Doctrine Research Data Platform in Azure GovCloud (IL4) using a microservice-based architecture; implemented ETL/data pipelines, data versioning, natural-language search, and full-stack web-applications; built with **C#, ASP.NET Core MVC, ReactJS, Python, FastAPI**, and **Azure SQL Server**.
- Developed OEVis, a full-stack graph-network analytics and simulation tool with real-time co-authoring, cloud-sync, and custom "bring-your-own-model" analytics model execution; replacing outdated commercial tools and cutting licensing costs.
- Managed a team of 14 developers using **Agile** delivery processes including sprint planning, backlog refinement, release planning, and reporting to ensure on-time, stable releases, rapid incident response, and sustained team performance.
- Conducted hands-on requirements investigation with analysts and client leadership, translating operational needs into clear engineering tasks, technical designs, program increments, and release milestones.
- Maintained the project's knowledge base in **Confluence**, authoring technical documentation, API specifications, requirements definitions, on-boarding materials, and end-user guides — establishing knowledge continuity throughout the project lifetime.

### FULL-STACK DEVELOPER, Junior

INTELLIGENT DECISION SYSTEMS, INC.

Jan 2019 — Sept 2020 | Newport News, VA

As a Full-Stack Developer and Machine Learning Engineer at IDSI, I built zero-trust **ReactJS/Python/Java/C++** data-discovery microservices, developed NLP-based semantic search and time-aware recommendation models (improving ranking by 10%), and deployed analytics services in Azure to accelerate T2COM G2 research and publication workflows.

### RESEARCH ASSISTANT, Undergraduate

ODU RESEARCH FOUNDATION, COMPUTER VISION LAB

April 2017 — Dec 2018 | Norfolk, VA

As a Research Assistant with the **ODU Computer Vision Lab**, I developed **Python-** and **C++-**based deep-learned computer-vision models for identifying abnormal (cancerous) brain tissue in MRI scans, trained models for gait-recognition in LiDAR video, and introduced the lab's **Git/GitHub** version-control practices.

# Patrick Young

LinkedIn://patyx • Github://paddy74 • StackOverflow://patyx

## QUALIFICATIONS

### EDUCATION

OLD DOMINION UNIVERSITY  
BS in Computer Science  
Dec 2018 | Norfolk, VA

### CERTIFICATIONS

Security Clearance: Top Secret/SCI (inactive)  
Azure Fundamentals: AZ-900  
ICAgile: DevOps

### LOCATION & TRAVEL

Willing to relocate • Willing to travel (80%)  
Remote, Hybrid, or On-Site  
Located in: Norfolk, VA

## TECHNICAL SKILLS

### LANGUAGES & MARKUP

Python ●●●●●  
Java ●●○○○  
C# ●●●○○  
C++ ●●●○○  
JavaScript ●●●○○  
TypeScript ●●●●●

### LIBRARIES & FRAMEWORKS

NodeJS ●●●○○  
ReactJS ●●●●●  
ASP.NET Core ●●○○○

### CLOUD COMPUTING

AWS ●●●●●  
Azure ●●●○○  
GCP ●●○○○

SQL ●●●○○  
R ●●○○○  
Bash ●●●○○  
HTML/CSS ●●●○○  
Markdown ●●●●●  
LaTeX ●●○○○

FastAPI ●●●●○  
Flask ●●○○○

Docker ●●●●●  
Kubernetes ●●●○○  
Linux Server ●●●○○

### DEVSECOPS

Agile Software Development  
GitLab ●●●●○  
GitHub ●●●○○  
Configuration Management  
Terraform ●●●●○  
OpenTofu ●●●●○  
Ansible ●●○○○

### SOFTWARE & TOOLS

PostgreSQL ●●○○○  
Neo4j ●●○○○  
Delta Lake ●●●○○  
Apache Spark ●●○○○  
Databricks ●●●○○

Azure DevOps ●○○○○  
Jira ●●○○○

Cloud-Init ●●○○○  
Helm ●●●○○

Apache Airflow ●●●●○  
Apache Kafka ●○○○○  
Power BI ●○○○○  
Plotly ●●●○○  
Matplotlib ●●○○○

## PROJECT HIGHLIGHTS

### NASA ENTERPRISE DATA PLATFORM

NASA • DATA & ANALYTICS SERVICES

Aug 2023 — July 2025

As the core component of NASA's enterprise data architecture, the Enterprise Data Platform is a comprehensive suite of data governance, analytics, visualization, and AI tools — providing users with a self-service solution to all of their data requirements.

*"To empower NASA with a secure, scalable, and unified platform that accelerates data-driven decision-making, fosters innovation, and ensures efficient, governed, and accessible data for the Agency." — vision statement*

### NASA OPEN DATA PORTAL

NASA • DATA & ANALYTICS SERVICES

Nov 2024 — July 2025

<https://data.nasa.gov>

The public's open data access portal for all of the Agency's publicly available data, including science, space exploration, aeronautics, and climate data. As part of compliance with the OPEN Government Data Act and the NASA Data Strategy, the Open Data Portal federates to DATA.GOV and integrates with NASA's internal enterprise data mesh.

### OEVIS | OPERATIONAL ENVIRONMENT VISUALIZATION

BAH • T2COM G2 DATA PLATFORMS TEAM

Jan 2023 — Aug 2023

<https://oe.tradoc.army.mil/oe-vis-operational-environment-visualization>

T2COM G2's Operational Environment Visualization tool provides a comprehensive suite of tools to perform in-depth network analysis, allowing users to identify key nodes, assess centrality measures, and understand the flow of information and influence within any given network.

### T2COM G2 TRAINING & DOCTRINE RESEARCH DATA PLATFORM

IDSI & BAH • T2COM G2 DATA PLATFORMS TEAM

Jan 2019 — Aug 2023

Empowering the mission of Army T2COM G2 to develop new training guidance and operational force profiles with a centralized platform for data governance, discovery, and analytics.