

JAMES BRUNING, MS

Senior Analytics Engineer

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Summary

Senior Analytics Engineer with 6+ years bridging business strategy and technical execution through enterprise-scale dimensional modeling and data platform development. **Proven track record as project DRI** for complex analytics initiatives, translating stakeholder requirements into scalable dbt-powered data models that drive strategic decision-making. Expert in **cross-functional collaboration** and **remote team leadership**, with extensive experience partnering with Finance, Operations, and Executive teams to deliver production-grade analytics solutions. Specialized in building data governance frameworks that ensure trusted, discoverable data while accelerating organizational data literacy and adoption.

Experience

Northwestern University

Evanston, United States

Sr Research Engineer and Analyst

2021 - Present

- Architected and maintained production-grade data transformation pipelines on cloud infrastructure, processing data from 15+ disparate sources into analytics-ready datasets for real-time KPI dashboards serving 25+ organizational units managing ~\$1B in awards and \$3.8B in proposals
- Implemented comprehensive data governance protocols using dbt, establishing data lineage documentation, column-level data quality tests, and standardized naming conventions that **reduced data inconsistencies by 40%** while creating a centralized data catalog with automated freshness monitoring and alerting
- Developed predictive behavioral models leveraging dimensional modeling approaches and Python, analyzing user behavior and engagement patterns across research publication trends that **informed strategic resource allocation decisions** and identified emerging academic opportunities through customer health-style analytics
- Designed and deployed scalable ETL/ELT pipelines integrated with cloud APIs for automated data ingestion, implementing incremental loading strategies and data quality checkpoints that **eliminated 200+ hours of manual processing while maintaining 99.5% data accuracy** through automated testing frameworks
- Spearheaded cross-functional data governance initiatives, collaborating with IT and Analytics stakeholders to establish code review processes, style guides, and documentation standards that improved data discoverability and **reduced onboarding time for new team members by 50%**.

Northwestern University

Evanston, United States

Assistant Data Analyst

2018 - 2021

- Developed automated analytics solutions using VBA for operational efficiency, creating reusable data models and governance documentation used by 7 team members to standardize budget generation processes across ~40 proposals for the School of Communication
- Built data models leveraging dbt transformations to analyze user survey engagement patterns and response behaviors, implementing data quality tests and lineage tracking that increased survey completion rates by 10% while establishing data governance foundations for stakeholder-driven analytics and strategic organizational reporting
- Facilitated stakeholder workshops on data governance best practices and analytics-driven decision making, educating cross-functional teams on data quality standards and documentation requirements while supporting the administration of \$10 million in annual funding operations

Education

Northwestern University

Master of Science, Data Science

2022 - 2024

Indiana University

Bachelors of Arts, Physics

2014 - 2018

Skills

Snowflake • Databricks • AWS • Azure Cloud Infrastructure • dbt • Python • SQL • Go • R • Airflow • Apache Spark • Custom API Integrations • Tableau • Looker • Power BI • Git • GitLab • GitHub • CI/CD pipelines • Docker • OpenMetadata • Data Mesh Architecture • Data Quality Testing • Finance • Research Operations • Grant Management • Academic Analytics

Key Achievements

40% Quality Improvement

Reduced data inconsistencies through comprehensive governance protocols and automated testing frameworks

10% Engagement Increase

Built behavioral analytics models that improved survey completion rates through data-driven insights

200+ Hours Saved:

Eliminated manual processing through scalable ETL/ELT pipelines with 99.5% data accuracy

50% Faster Onboarding

Established cross-functional data governance standards and documentation that accelerated team productivity