

Spencer Nash

Junior Machine Learning Engineer / BI Analyst

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Raleigh, NC 27606

STRENGTHS

- Analytical judgment**
Turned ambiguous banking questions into validated datasets and dashboards; faculty reviewers trusted clear reasoning behind each result.
- Practical automation**
Replaced repeated notebook steps with Python and pandas scripts; peers gained a smoother weekly review routine.
- Clear explanation**
Presented model errors and fairness concerns in plain language; thoughtful discussion improved research decisions before evaluation.
- Reliable delivery**
Used Docker, tests, Git, and documentation on shared projects; teammates viewed repositories as ready for practical review.
- Stakeholder focus**
Started with five stakeholder questions before building Tableau views; resulting dashboards supported focused budgeting conversations.

SKILLS

Analysis Skills Artificial Intelligence

Automation Banking Services

Business Intelligence

Cloud Computing Data Analysis

Data Science DevOps Java

LinkedIn Machine Learning

Python Software Engineering

SQL

LANGUAGES

English

Native

SUMMARY

Junior machine learning engineer and BI analyst with two years of applied academic experience building Python models, SQL reporting workflows, and cloud-ready data solutions. Computer science training spans machine learning, artificial intelligence, **data analysis**, **business intelligence**, **software engineering**, **automation**, DevOps, and database design. Delivered supervised banking-services and budgeting projects that turned stakeholder questions into documented datasets, dashboards, and predictive prototypes. Comfortable with Python, Java, SQL, pandas, scikit-learn, Tableau, Git, Docker, AWS, REST APIs, and PostgreSQL. Practical work covers DSA, system design, SQL, model evaluation, pipeline automation, technical documentation, and behavioral storytelling. Ready to bring curiosity, steady execution, and thoughtful communication to a team building dependable software, analytics, and ML solutions.

EDUCATION

Bachelor's Degree in Computer Science

North Carolina State University GPA: 3.8 2026 Raleigh, NC

Coursework: Machine Learning, Data Analysis, Business Intelligence, Software Engineering, Database Design

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, SQL
- **Machine Learning:** scikit-learn, Model Evaluation, Classification
- **Data Analysis:** pandas, Data Profiling, Forecasting
- **Business Intelligence:** Tableau, Dashboards, Calculated Fields
- **Cloud Platforms:** AWS, AWS Academy Cloud Foundations, Cloud Computing
- **DevOps Tools:** Docker, GitHub Actions, Git
- **Databases:** PostgreSQL, Star Schema, SQL Queries
- **Software Engineering:** REST APIs, Unit Testing, Structured Logging
- **Automation:** Python Scripts, CI Pipelines, Build Checks
- **Data Structures:** DSA, Algorithms, Complexity Analysis
- **System Design:** Service Design, Integration Patterns, Scalability
- **Documentation:** README Files, Model Cards, Technical Guides

EXPERIENCE

Machine Learning Engineering Research Assistant

University Machine Learning Lab August 2025 - Present Raleigh, NC

Faculty-guided research role supporting supervised **machine learning**, reproducible experiments, data preparation, model evaluation, Docker delivery, and clear technical communication for banking-services analysis.

- Built Python classification pipeline for banking-services data with reproducible experiment notes and clean feature preparation.
- Compared logistic regression, random forest, and gradient boosting through precision, recall, F1, and confusion matrices.
- Automated pandas data preparation scripts, shortening weekly experiment setup and improving review consistency for researchers.
- Containerized prototype with Docker and documented dependencies, configuration, and local execution for four-person research team.
- Presented model assumptions, error patterns, and fairness considerations during lab reviews for timely faculty feedback.
- Published repository with SQL extracts, model cards, test cases, and README supporting professional ML documentation.

MY CAREER



- Machine Learning Engineering Research Assistant at University Machine Learning Lab (1.1 Years)
- Junior BI Analyst, Academic Capstone at Capstone Business Intelligence Project (4 Months)
- Python/Java Developer, University Project at Software Engineering and Cloud Automation Project (4 Months)

Junior BI Analyst, Academic Capstone

Capstone Business Intelligence Project 📅 January 2025 - May 2025 📍 Raleigh, NC

Business intelligence role delivering SQL analysis, Tableau reporting, Python trend analysis, and documented recommendations for simulated banking budgeting and branch right-sizing decisions.

- Designed banking intelligence solution linking branch **budgeting**, service demand, account activity, and **right-sizing** decisions.
- Wrote SQL against star-schema warehouse with 180,000 anonymized records and validated reconciliation totals.
- Created Tableau dashboards covering budget variance, service volume, account activity, and branch comparisons for stakeholders.
- Profiled seasonal trends with Python and pandas, producing documented forecasting inputs for budgeting workshops.
- Translated five stakeholder questions into dashboard requirements, wireframes, calculated fields, and acceptance checks.
- Delivered recorded presentation and implementation guide earning top-tier evaluation for clarity, traceability, and decision usefulness.

Python/Java Developer, University Project

Software Engineering and Cloud Automation Project 📅 August 2024 - December 2024 📍 Raleigh, NC

Software engineering role delivering a Java and Python service prototype with REST integration, PostgreSQL, automated testing, Docker Compose, and GitHub Actions for a simulated operations workflow.

- Developed **Java** and Python service ingesting support events and exposing summary metrics for **business intelligence**.
- Implemented REST endpoints, validation rules, structured logging, and unit tests within a shared codebase.
- Configured GitHub Actions for tests, linting, and build checks on every repository change.
- Connected application with PostgreSQL through Docker Compose and documented environment setup for peer evaluators.
- Applied SQL aggregation and Python analysis to identify backlog patterns for an operations review.
- Explained design tradeoffs, failure handling, deployment steps, and ML opportunities during department showcase.

PROJECTS

- Banking Services Risk Classifier** 📅 2026
- Built a documented Python and scikit-learn prototype for imbalanced account-risk analysis. Compared models, recorded evaluation results, and presented fairness considerations in a professional review format.
- Branch Budget Intelligence Dashboard** 📅 2025
- Created SQL and Tableau reporting for simulated bank branches. Connected budget variance, service demand, and operational right-sizing views so finance stakeholders could discuss decisions with shared evidence.
- Cloud Operations Event Service** 📅 2024
- Developed Java and Python REST services with PostgreSQL, Docker Compose, GitHub Actions, logging, and tests. Project demonstrated deployable software engineering habits beyond classroom exercises.

PORTFOLIO

Title: Professional Project Repository
Link: linkedin.com/example/spencernash
Description: Selected ML, BI, Java, Python, and cloud automation work presented through documented project evidence.

LEADERSHIP & AWARDS

- Dean's List, North Carolina State University, Fall 2024 and Spring 2025
- Best Applied Analytics Presentation, College Capstone Showcase, 2025
- Undergraduate Research Poster Finalist, North Carolina State University, 2026

CERTIFICATIONS

- Google Data Analytics Professional Certificate 📅 2025
- AWS Academy Cloud Foundations 📅 2025
- Machine Learning with Python, IBM SkillsBuild 📅 2026

PROFESSIONAL AFFILIATIONS

- Machine Learning Lab Peer Mentor, North Carolina State University, 2025-2026
- Treasurer, Computer Science Student Association, 2024-2025
- Volunteer Workshop Presenter, Data and Analytics Student Group, 2025

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST