

Roy Zhou

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TECHNICAL SKILLS

Languages: Python, SQL, JavaScript | **Cloud:** AWS Certified Cloud Practitioner, Snowflake

Data & AI/ML: pandas, scikit-learn, XGBoost, Hugging Face, RAG, AI Agents, LLMs

WORK EXPERIENCE

Data Scientist II

August 2023 - Present

BNY

New York, NY

- Designed and deployed enterprise AI/ML solutions for the bank's data platform.
- Built an agent integrated with a larger digital employee to extract and standardize data from unstructured financial documents, achieving 96% extraction accuracy and reducing manual processing to allow teams to focus on analytics and strategic work.
- Led development of an AI-assistant trained on technical documentation and enterprise knowledge sources to deliver role-aware, context-sensitive support across products and features for 1,400+ employees, improving self-service, reducing support load, and accelerating data onboarding.
- Engineered the company's first regulatory agent for reviewing supervisory findings, auditing remediation progress, handling CSI securely, and drafting responses, successfully addressing 15+ findings from regulators.
- Developed a data governance tool that orchestrated multiple agents to automate generation of data dictionaries, standardized business terms, and data quality rules to enhance metadata accuracy, enforce a single source of truth, and improve enterprise data quality.
- Developed a RoBERTa-based sequence classification model to assign sensitivity levels to data lake elements, leveraging NLP to improve compliance for over 2000 datasets.
- Implemented an ARIMA-based time series anomaly detection model to identify abnormal data ingestion patterns in the data platform, proactively detecting pipeline issues and supporting operational monitoring.
- Built statistical and machine learning models to automate SLA assignment for data providers, improving operational efficiency and resulting in ~25% fewer late deliverables.

Web Scraping Specialist

March 2023 - April 2023

Octavate

New York, NY

- Built and maintained automated web scraping pipelines using BeautifulSoup and Selenium, storing large datasets in AWS, and processing them to extract insights to support decision making.

Software Developer Intern

June 2022 - August 2022

Instinet Incorporated

New York, NY

- Developed a client application interfacing with the company's trading platforms to submit orders, execute trades, and consume real-time market data, enabling end-to-end testing and validation of legacy and modern trading systems.

PROJECTS

MarketLens

January 2026

- Stock research assistant integrating real-time market data, financial statements, and news with RAG-based natural language querying, sentiment analysis, and neural network based price forecasting to provide data-driven investment insights.

EDUCATION

New York University

May 2023

Bachelor's in Computer Science and Data Science

New York, NY