Neal Iyer

AI & Data Engineer | McLean, VA | 240-644-7960 | neal.iyer88@gmail.com | Github

Professional Summary

AI & Data Engineer with 3+ years of experience developing ML and NLP-powered solutions to drive automation, insights, and customer impact. Skilled in LLM pipelines, Python/SQL development, and deploying efficient, user-facing AI applications.

Professional Skills

- **Machine Learning & NLP:** Transformers, Scikit-Learn, TensorFlow, PyTorch, LightGBM, LLM APIs (ChatGPT, Gemini), Sentiment Analysis
- **Data Engineering:** ETL Pipelines, Data Cleaning, Feature Engineering, Snowflake, AWS, MySQL, PostgreSQL, Pandas
- **App & API Development:** Python, FastAPI, REST APIs, Streamlit, Resume Parsing, Modular ML Pipelines
- **BI & Dashboarding:** Power BI, Tableau, Self-Service Tools, KPI Analytics, Visualization
- **Agile Delivery:** Cross-Functional Collaboration, MLOps, Stakeholder Engagement, Agile Workflows

Experience

Substance Abuse and Mental Health Administration, Department of HHS

Budget Analyst   Dec '23 - Current

- Develop real-time financial dashboards integrating Power BI, SQL, and Python, improving executive visibility and reconciliation efficiency by **25%**.
- Engineer LLM-assisted tools to summarize unstructured budget justifications, reducing time spent on manual review by over **40 hours/month**.
- Deliver AI-driven cost forecasts using LightGBM, improving accuracy by **15%** across a **$165M** payroll budget.
- Automate incentive tracking via Excel VBA and Python scripts, increasing data accuracy by **85%** and saving **120+ hours annually**.
- Collaborate cross-functionally with Finance, IT, and Policy teams to streamline reporting pipelines and ensure compliance with federal guidelines.

CRI – Department of the Interior

Budget Analyst   Mar '21 - Dec '23

- Built SQL-based ETL pipelines to consolidate multi-source logistics and spend data, improving reporting quality by **20%**.
- Automated reconciliation and audit workflows using Excel VBA, reducing manual tracking time by **30%**.
- Delivered Power BI dashboards visualizing KPIs and divisional trends, enhancing executive reporting efficiency.
- Partnered with IT/Finance teams to ensure backend data accuracy and governance compliance.

Cresa

Accounting Analyst   Dec '20 - Mar '21

- Automated financial expense tracking models in Excel, reducing reconciliation errors by **35%**.
- Conducted financial statement variance analysis to improve budget alignment and decision-making.

FrontStream

Fund Accountant   Aug '18 - Sep '20

- Led financial reconciliation for Fortune 500 clients, improving transaction accuracy by 30% through automation.
- Developed SQL-based audit tools that improved reconciliation accuracy for Fortune 500 clients by **30%**.
- Automated reporting workflows, saving over **250 hours/year** and boosting compliance cycle efficiency.

Education and Certifications

Flatiron Data Science Bootcamp

Certificate | Data Science

- Advanced expertise in **Python, SQL, data visualization, machine learning, and feature engineering**.
- Built and tuned ML models for classification, regression, and time series (XGBoost, ARIMA, LightGBM, Random Forest)

University of Maryland (UMBC) – Baltimore County

Bachelor of Arts | Economics

HackerRank Intermediate SQL Certification

Projects

Resume Tailoring & Auto-Application Assistant (NLP/LLM Platform)
Python | GPT-4 | FastAPI | Streamlit | Jinja2 | Automation

- Developed a full-stack GenAI tool that parses resumes, extracts job keywords, and tailors content using **LLMs** like ChatGPT for personalized applications.
- Built FastAPI backend with GPT-4 integration to classify resume sections, match keywords, and generate enhanced output.
- Implemented Jinja2 formatting, PDF export, and Streamlit UI for resume upload, job search, bulk tailoring, and auto-apply workflows

Substance Abuse Risk Prediction (ML Capstone)
Classification | Feature Engineering | Tableau

- Built ML classifiers to detect high-risk individuals using behavioral health data, supporting early intervention.
- Used NLP sentiment analysis to evaluate outreach strategies, visualized in **Tableau dashboards** for policy stakeholders.