Travis DeShazo

Annandale, NJ 08801 | (908) 442-0588 | travis.deshazo@gmail.com | LinkedIn | GitHub

PROFESSIONAL SUMMARY

Software Engineer building API-driven services and ETL pipelines that integrate laboratory informatics and industrial control systems into production applications for laboratory and pilot plant workflows. Delivered measurable impact including $696K annual savings, cycle-time reductions, and 65% response-time improvement through system modernization and automation. 10+ years domain expertise in lab and pilot-plant operations, enabling high-trust delivery in regulated, high-consequence environments.

TECHNICAL SKILLS

- **Languages**: Python, Go, Visual Basic, C#, JavaScript
- **Web**: ASP.NET Core, Flask, FastAPI
- **Data**: Microsoft SQL Server, PostgreSQL, SQLIte, ETL, Entity Framework, sqlc
- **Tooling**: Git, GitHub, Docker, Visual Studio, Visual Studio Code
- **Integration**: REST APIs, LIMS, OPC-HDA, GCP, JSON
- **Operating Systems**: Linux, Windows
- **ML/AI**: OpenAI API, Gemini API, sentence transformers, RAG

WORK EXPERIENCE

EXXONMOBIL TECHNOLOGY AND ENGINEERING COMPANY

Technical Software Engineer   *Annandale, NJ* · **May 2024 - Present**
- Embedded in Pilot Plant and Laboratory Engineering group as one of two Software Engineers, supporting research and pilot-plant applications and data integrations with Python and .NET to ensures timely availability of critical data for engineering decisions.
- Developed Python chemical inventory tools and ETL pipelines that enabled compliant disposal of 475K gallons of research samples, delivering $696K/year savings ($300K storage + $396K labor).
- Modernized a legacy data platform into an API-driven ASP.NET Core + SQL Server stack; designed and implemented RESTful endpoints and reduced response time 65% while improving portability, extensibility, and maintainability.
- Integrate Laboratory Information Management System (LIMS) and process historian data (OPC-HDA) into purpose-built applications and dashboards, partnering with researchers and managers to deliver real-time metrics using Python, Flask, and Streamlit.
- Lead development and maintenance of lab/pilot-plant data platform supporting experiment organization and traceability across 20 hydroprocessing pilot units, with 30 users across the US and Malaysia.

Distillation Lead   *Annandale, NJ* · **Aug 2022 - Apr 2024**
- Independently developed Python SDK and test framework validating 100% of new in-house LIMS API connections, using Pytest to automate integration and regression validation across LIMS endpoints, and Pydantic to enforce schema validation for laboratory sample and metadata payloads eliminating undocumented gaps and ensuring continuity across mission-critical lab systems.
- Reduced raw-material processing time by 50% by designing internal metrics models, streamlining workflows, and aligning business partner priorities with technical feasibility.
- Increased distillation throughput 30% by commissioning automated solutions and deploying custom routines.
- Led a team of 5 technicians in global crude assay distillation operations, coordinating with cross-functional teams and guiding researchers on process design, which reduced assay turnaround time and improved data consistency
- Drove site-wide adoption of automation solutions by demonstrating sensors and actuators at internal fairs, influencing cross-departmental practices and enabling greater visibility into previously siloed processes.
- Expanded scope to include software engineering responsibilities in November 2023, splitting time between leading distillation operations and software development.

Senior Research Technician   *Annandale, NJ* · **May 2014 - Jul 2022**
- Established subject-matter expertise in basestock refining research by executing solvent extraction, dewaxing, and de-asphalting studies and by supporting global crude and lube assays, compositional modeling, and scale-up trials.
- Accelerated pilot-plant feedback from 24+ hours to near real-time and cut processing time by 25% by leading automation upgrades and repurposing idle equipment, reducing costs and enabling faster, more efficient experimentation.
- Co-invented and patented solvent extraction process for vacuum residue (US Patent 11,801,454), creating new economic value for low-grade petroleum feedstocks.
- Used VB-based data scripts and ETL pipelines to automate data workup, enhancing the reliability of assay data for downstream process decisions

EDUCATION

BOOT.DEV   **Feb 2026**
Back-end Developer Path Certificate
- **Coursework:** Python, Go, SQL, HTTP APIs, Docker, AWS fundamentals

ROWAN UNIVERSITY   **Dec 2012**