

Dagm Fikir Abate

dagtfsm@gmail.com | +1 (484) 459-5720 | **Silver Spring**, Maryland, USA

SUMMARY

Results-driven data and decision analytics expert with over five years of experience managing data pipelines, infrastructure optimization, and project controls. Proven track record in SQL, Python and data validation across large datasets. Recently expanded into Full stack develop't, building end-to-end web applications that integrate data science, optimization, and modern backend systems.

CORE SKILLS & TOOLS

Full Stack Development tools (HTML, CSS, React, Node.js, MySQL/PostgreSQL, and FastAPI), Data Integration & Governance, Statistical Analysis, SQL, Python, Tableau, ArcGIS, QGIS, Optimization Modeling (LP, MIP, Gurobi).

PROFESSIONAL EXPERIENCE

Full Stack Developer – Freelance | Silver Spring Maryland, USA | Dec 2024 – Present

- Built scalable Full stack applications using React, Node.js, FastAPI, and PostgreSQL with a focus on modular backend logic and platform reliability.
- Deployed 3+ apps to production with CI/CD pipelines, including:
 - A Q&A Forum Platform (role-based auth, REST APIs, relational data model) (<https://teamone-evangadi-forum.netlify.app>).
 - E-commerce and streaming service clones (dynamic routing, Firebase login) (<https://dag-abate-amazon-clone2025.netlify.app>; <https://dagabate.github.io/Netflix-clone-2025>).
- Managed backend data schema, APIs, and frontend integration, ensuring zero major bugs post-deployment.
- Currently leading development of a Smart Supply Chain Platform integrating predictive ML models and optimization algorithms with backend service logic.

Optimization and ML Researcher | Pennsylvania State University | Jul 2024 – March 2025

- Built SQL-based data pipelines and backend dashboards that improved operational visibility into forest asset planning by 40%.
- Developed optimization models (LP, MIP) in Python and Gurobi, reducing computational time by 30% via code tuning and query optimization.
- Partnered with ETL and GIS teams to reconcile and validate data from >20 spatial and tabular sources, supporting accurate service planning simulations.
- Authored documentation on metric logic, data lineage, and model parameters for internal reproducibility and audit trails.

Operations Research Analyst | FIRE-RES Project, Lisbon | Sept 2021 – Feb 2025

- Designed cross-functional decision support dashboards for wildfire mitigation, streamlining reporting and data refresh cycles by 50%.
- Developed automated Python workflows to track real-time service risk metrics across >5 regions and 100+ landscape units.
- Led a cross-functional team integrating machine learning models with GIS and SQL databases.
- Led data governance efforts: standardized input/output schemas, resolved platform inconsistencies, and trained team on quality control best practices.

Operations & Data Strategy Consultant | Este Forest Product Enterprise | Nov 2020 – Sept 2021

- Applied data analytics to optimize forest harvest logistics, reducing transport costs by ~15% through SQL-driven route optimization models.
- Delivered weekly data reports to leadership, integrating Tableau dashboards with backend SQL views for real-time tracking.
- Conducted audit of data gaps across supply chain operations, leading to a revised data model with 20% more completeness.

Lecturer & Department Head | University of Gondar | 2014–2018, 2020–2022

- Directed environmental data systems, improving data reporting accuracy by 25% via new tracking tools and student information systems.
- Supervised 10+ applied research teams, coordinating field data collection, spatial analysis, and documentation of analytical models.
- Delivered training on geospatial database design, statistical computing, and technical report writing.

EDUCATION and TRAINING

Full stack Web App Development | Building end-to-end apps | Evangadi Tech, USA Dec 2024 – June 2025.

Erasmus Mundus MSc in Mediterranean Forestry | Decision Support and Multiple Criteria Analysis, University of Lisbon & University of Padova | 2018–2020

BSc in Natural Resources Management, Hawassa University, Ethiopia | 2007–2010