

Thomas Levine

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EDUCATION

- **Georgia Institute of Technology** Atlanta, GA
Master of Science in Analytics, Computational Track Aug. 2024 – May 2027
- **Virginia Commonwealth University** Richmond, VA
Bachelor of Arts in Music Performance, Minor in Computer Science; GPA: 3.98 Aug. 2017 – May. 2021

EXPERIENCE

- **The Washington Post** Washington, DC
Software Engineer II, Ad Targeting Nov 2022 - Present
 - **Brand Suitability:** Key developer for the Washington Post's Brand Suitability product, expanding Brand Suitable inventory by 20% and creating potential for up to \$15M in new revenue opportunities.
 - **Python Tagging Engine:** Re-engineered an internal Python library leveraging Scikit-Learn to enable rule-based topic tagging on words and metadata. Achieved significant performance improvements through memory profiling and Locust testing, maintaining sub-second evaluation times.
 - **Microservice Architecture:** Built and optimized a high-throughput FastAPI microservice for real-time article tagging and contextual targeting, handling 8 million requests per hour. Leveraged ECS for dynamic scaling in response to readership demand.
 - **Internal Dashboard:** Developed a user-friendly dashboard that enables AdOps teams to manage client blocklists within the article tagging engine and visualize the inventory impact of specific topics, enhancing operational control.
 - **Simulation:** Built a customizable simulation dashboard for configuring Brand Safety parameters, enabling revenue impact forecasting, impression volume analysis, and reviewer agreement assessment to guide strategic decisions.
 - **Data Engineering:** Developed robust ETL pipelines and a Redshift cluster to support comprehensive internal and competitive market analysis within Brand Suitability, aggregating data from Google Ads Manager (80M daily impressions) using EMR and Spark for analytics.
 - **Artificial Intelligence:** Developed an experimental Retrieval-Augmented Generation chatbot that enhances media planner workflows by identifying optimal targeting criteria in RFPs, streamlining decision-making and improving targeting precision.
 - **Process Optimization:** Designed a hackathon-winning project to identify underperforming targeting segments and generate personalized client communications with targeting criteria and available impressions. The project was selected for full development, with potential for future production deployment.
- **CGI Federal** Arlington, VA
Software Engineer Sep 2021 - Nov 2022
 - **Data Pipelines:** Developed and monitored data streams for production updates, proactively debugging architecture and database discrepancies to ensure data integrity and continuity across dozens of environments.
 - **DevOps:** Enhanced and maintained Jenkins CI/CD pipeline for the Department of State, streamlining deployment cycles and supporting ELT tasks with SAP HANA, resulting in improved delivery efficiency and system reliability.
 - **Full Stack:** Built and managed an internal web application using Angular, Express, Node.js, and Oracle SQL to streamline the tracking and updating of 50+ development environments, boosting team productivity and system transparency.
 - **Automated Testing:** Created and optimized PowerShell and CMD scripts to automate SQL QA testing, reducing manual testing time and ensuring higher accuracy and consistency across data validation processes.

SIDE PROJECTS

- **Spotify Subgenre Visualization:** Data Visualization of personalized Spotify User Data using Highcharts, React, and Express.

PROGRAMMING SKILLS

- **Languages:** Python, Javascript, Typescript, C, SQL, Java **Technologies:** AWS, Docker, React, Kafka, GCE
- **AWS Specialties:** Redshift, Lambda, RDS, S3, EC2, ECS, CloudFormation, CDK, CloudWatch
- **Other Specialties:** Microservices, Distributed Systems, Google Ad Manager, DataDog, Splunk