Serap Ogut

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EDUCATION

Southern Methodist University - North Texas Scholar — Dallas, TX
Bachelor of Science: Computer Science and Data Science — GPA: 3.9 — *Exp. Graduation: Dec. 2025*

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript, TypeScript, SQL, HTML/CSS
Frameworks/Libraries: React, Node.js, Express.js, Django, Flask, LangChain, scikit-learn
Databases: PostgreSQL, MySQL, MongoDB, Neo4j, Snowflake
Cloud & DevOps: AWS, Google Cloud Platform, Azure DevOps, Docker, Kubernetes, CI/CD Pipelines
Developer Tools: Git/GitHub, VS Code, IntelliJ, PyCharm, Postman, Jira, Asana
Other: RESTful API Design, Object-Oriented Programming (OOP), Agile/Scrum, Unit Testing

PROFESSIONAL EXPERIENCE

Software Engineer Intern — Data Engineering — May 2025 – Aug. 2025
CBRE — *Dallas, TX*

- Built a scalable data management system to store, process, and query **10B+** records, automating dataset generation, metadata tagging, and query creation to streamline analytics workflows.
- Optimized Python, SQL, and **dbt** pipelines to reduce query latency by **45%**, saving **10+ hours weekly** for a team of new analysts.
- Developed CI/CD workflows using Azure DevOps and GitHub Actions, improving deployment reliability and cutting release times by **30%**.

Data Engineer - Project Team Lead — Aug. 2025 – Present
Toyota Financial Services — *Plano, TX*

- Developing a full-stack self-service data portal with React, Python, and REST APIs, enabling **100+** analysts to run and export secure SQL queries.
- Optimizing ETL pipelines and Snowflake/Postgres schemas, improving query performance by **35%** and data reliability across multi-TB datasets.

Software Research Assistant — May 2025 – Present
Southern Methodist University — *Dallas, TX*

- Engineered a RAG chatbot to query **1500+** City of Richardson council meeting records, enabling semantic search and summarization.
- Deployed scalable document ingestion and embedding pipelines using LangChain, Python, and FAISS, saving researchers **8+** hours weekly.

Software Engineer Intern — Suicide Screening Project — May 2024 – Aug. 2024
Parkland Center for Clinical Innovation — *Dallas, TX*

- Engineered a predictive Logistic Regression model using Flask and Databricks APIs to evaluate suicide risk from **3M+** patient encounters, achieving **75% balanced accuracy** and **83% sensitivity** through advanced feature engineering.
- Automated model evaluation and retraining pipeline with Spark, reducing manual workload and accelerating iteration cycles by **40%**.

LEADERSHIP EXPERIENCE

Thrive Scholars – Southern Methodist University — Jan. 2024 – Present

- **Student Coordinator (May 2025 – Present):** Promoted to lead **25+** student mentors supporting **100+** freshmen and transfer students in engineering and related majors with **150+** participants.
- **Peer Mentor (Jan. 2024 – May 2025):** Guided first-year scholars through academic and career development, facilitating mentorship events and improving engagement by **30%**.

Event Coordinator | *Generosity Foundation* — Jan. 2025 – Present

- Managed fundraising operations exceeding **$1M+** in donations, supporting **214** students through educational scholarships.
- Orchestrated community and donor engagement events with **50+** attendees on average, expanding outreach and increasing recurring contributions across major sponsorships.

PROJECTS

dasCover – AI Cover Letter Generator | *Python, Flask, OpenAI API, React* — Feb. 2025 – Apr. 2025

- Developed an AI-driven web application that generates personalized, ATS-optimized cover letters from resumes and job descriptions.
- Integrated OpenAI API and resume-parsing pipeline; achieved **94%** relevance match accuracy in output letters.
- Deployed app on AWS EC2 with a Flask backend and React frontend, supporting **500+** generated letters during beta testing.

Search Engine for JSON Articles | *Co-Founder, C++* — Dec. 2022 – Jan. 2023

- Coded a multithreaded search engine using POSIX threads and Google C++ standards, ranking **1st** in a university-wide performance benchmark.
- Designed load-balanced indexing and advanced sub-query capabilities, reducing ingestion time by **38%** and improving user search precision.