Serap Ogut

424-431-9757 | oogut@smu.edu | linkedin.com/in/serapogut/ | github.com/oykuserap

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 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   May 2025 – Aug. 2025
CBRE   *Dallas, TX*
- Improved internal data-access APIs in Python and SQL, reducing query latency by **45%** across global datasets of 10B+ rows.
- Automated CI/CD workflows using Azure DevOps and GitHub Actions, accelerating deployment cycles by **30%**.
- Architected a metadata tagging and query catalog framework improving data discoverability for **93%** of analysts.

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%**.

Software Research Assistant   May 2024 – Aug. 2024
Southern Methodist University   *Dallas, TX*
- Developed a full-stack Python application integrating OpenAI's ChatGPT-3.5 and LangChain to match students with faculty based on natural-language research queries, covering **184** researchers across 14 departments.
- Implemented a Neo4j-powered graph search API enabling semantic ranking, improving query precision and retrieval speed 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.

AI Medical Assistant Project | *Project Management, Full Stack*   Jan. 2025 - May 2025
- Directed a four-person cross-functional team building a scalable AI medical assistant system for a Fortune 500 client.
- Designed and executed backend data synchronization and tracking for **25** deliverables and **400+** project tasks.

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.