Talia Berler
Data Scientist

Miami, FL
+1 (305) 710-2434
tkb40@miami.edu
in/talia-berler

PROFESSIONAL SUMMARY

Data scientist and AI researcher with 2+ years of experience delivering analytics solutions in healthcare, climate resilience, education, and data visualization. Adept at creating ML pipelines, building LLM-powered solutions, and leveraging AI for evidence-based decision-making. Passionate about translating technical insights into actionable strategy for cross-functional stakeholders.

TECHNICAL SKILLS

Languages & Web: Python, Java, R, JavaScript, C++, SQL, HTML5, CSS3

AI / LLM Technologies: Large Language Models (GPT API, Anthropic API), Prompt Engineering, RAG Pipelines, Fine-Tuning

ML Frameworks: PyTorch, TensorFlow, Hugging Face Transformers, Scikit-learn

Data & Geospatial: Pandas, NumPy, BeautifulSoup, ArcGIS, Excel

Visualization: Matplotlib, Seaborn, Tableau, Flourish, PowerPoint, Adobe Illustrator

DevOps & Cloud: Git/GitHub, Azure, Docker, VS Code, Colab, JupyterLab

EXPERIENCE

CLIMATE RESILIENCE INSTITUTE, University of Miami – Coral Gables, FL   *Sep 2025 – Current*
Graduate Intern
- Generating graphics and slide decks to communicate the story of the climate resilience dividend in terms of projected financial burden and benefits of building more resilient communities
- Researching and organizing climate adaptation literature and studies into a database to inform visual communications and climate resilience initiatives

UM LAW & AI LAB (MILA), University of Miami School of Law – Coral Gables, FL   *Jul 2024 – Current*
ClassInsight Project Lead
- Lead student developer for LLM-based agentic classroom-feedback application, ClassInsight
- Working with UI developer to formalize and scale beta app for publication of open-source code on GitHub

Research Assistant, Dev Ops Team
- Assist PI in building a hub for interdisciplinary research, innovation, and education in the field of AI and law, which aims to provide students with AI-related literacy and skills within the legal domain and facilitate AI use in research and teaching for interested faculty
- Leverage popular LLMs, including OpenAI and Anthropic models, to develop instructional tools at the University of Miami School of Law

LAB VALDES, Moffitt Cancer Center – Tampa, FL   *May 2025 – Nov 2025*
Research Trainee
- Led a month-long experiment with an external consulting team to evaluate 6+ state-of-the-art retrieval algorithms for a medical RAG system of 20+ databases containing over 1 million text records
- Generated new benchmark datasets for training and evaluating a logistic regression model to classify specific types of cancer within the 283B tokens of cancer text data in The Blue Scrubs v2.0 with 692B tokens of medical text
- Collected and processed 500K+ clinical trial records and clinical guideline documents to build robust RAG databases for The Blue Scrubs Virtual Clinicians via scraping, API access, and public data downloads

VALIDIT.AI – Tel Aviv, IL   *Jun 2023 – Jul 2023*
Development Intern
- Executed rigorous quality assurance testing on trust verification application and admin site
- Revamped website to effectively market the application to investors and potential clients

SELECTED PROJECTS

ClassInsight – LLM-Driven Classroom-Feedback Application
MiLA Lab
- Developed agentic classroom-feedback system using GPT and Anthropic APIs; integrated retrieval workflows and prompt-engineering strategies
- Co-led UI collaboration and prepared open-source release; shortlisted finalist at AIREA 2025

Cancer-Type Classifier for [The Blue Scrubs v2.0 Dataset](#)
Moffitt Cancer Center
- Built a TF-IDF + Logistic Regression model to classify cancer types within a 692B-token clinical text corpus, creating a curated 30K-sample breast-cancer dataset from 11.5M records using keyword bootstrapping and sampling filters
- Achieved strong performance on hold-out and out-of-sample sets (F1 0.86, AUC 0.94) with <3-minute CPU training pipeline

Medical Retrieval-Augmented Generation System
Moffitt Cancer Center
- Evaluated 6+ retrieval algorithms across 1M+ medical text records; designed benchmarking datasets for classifier training
- Processed 500K+ clinical trial and guideline documents using scraping, APIs, and ML preprocessing pipelines

Assessing Agricultural Land Suitability under Future Climate Scenarios, California's Central Valley
GIS II Final Project
- Built an ArcGIS-based multi-criteria evaluation model combining soil, climate, hydrology, elevation, and land-cover data to map agricultural suitability
- Compared baseline and future climate scenarios (SSP2-4.5, SSP5-8.5) for 2050, producing suitability and change maps highlighting gains, losses, and stable zones

EDUCATION

Master of Science (M.Sc.), Data Science　　　　University of Miami, Coral Gables, FL | May 2026
SMART Cities Track
GPA: 4.00/4.00

Bachelor of Science (B.Sc.), Computer Science　　University of Miami, Coral Gables, FL | Dec 2024
Magna Cum Laude; GPA: 3.96/4.00

High School Diploma　　　　　　　　　Ransom Everglades School, Miami, FL | May 2020
Magna Cum Laude; GPA: 4.00/4.00

EXTRACURRICULARS

CLIMATE RESILIENCE INSTITUTE – Miami, FL　　　　　　　　　*Dec 2024 – Current*
Student Advocacy Council Member
- Contributing to bimonthly meetings of the Student Advocacy Council in order to plan events, programming, conferences, and advocacy strategy to encourage resiliency work on campus and in broader Miami
- Designing interdisciplinary projects to address climate resilience preparation in Miami with team members from across University of Miami's academic departments

BONSAI APPLIED COMPUTATIONS GROUP – Miami, FL
Graduate Analyst, Product Team　　　　　　　　　　　　　*Jan 2025 – Mar 2025*
- Assisted team in developing genetics-based product optimization algorithm with feature ranking and multi-generational product tracking
- Researched data visualization types and software to visualize evolution of products through life cycle

Undergraduate Analyst, Marketing Team　　　　　　　　　　*Sep 2024 – Dec 2024*
- Designed and implemented algorithms to perform sentiment analysis and produce time series visualizations of large political tweet datasets
- Collaborated with product managers and cross-functional teams to develop and optimize computational programs for research-focused projects, delivering sprint-based solutions for third-party clients such as companies and professors

CERTIFICATIONS

IBM Data Science Practitioner — IBM, issued Jun 2025
(Credential ID: IBMDesign20250604-28-opwtxt)

IBM Enterprise Design Thinking Practitioner — IBM, issued Apr 2025
(Credential ID: IBMDesign20250604-26-375fdi)

HONORS & AWARDS

Shortlisted Finalist, AIREA Competition, Hong Kong, Jul 2025
"Class Insight"

Phi Beta Kappa, May 2025

President's & Provost's Honor Rolls, 2022-2024

Dean's List, 2022 - 2024

Faculty Cup, Segall '82 Leadership Award, Ransom Everglades School, May 2020

PREPRINTS

Talia Berler, Or Cohen-Sasson. ClassInsight: Developing an Agentic AIEd Tool for Responsive Teaching and Learning, 13 January 2026, PREPRINT (Version 1) available at Research Square [https://doi.org/10.21203/rs.3.rs-8078768/v1]

CONFERENCE PRESENTATIONS

UNIVERSITY OF MIAMI GRADUATE RESEARCH SYMPOSIUM – Miami, FL Mar 2025
Oral Presenter, "Class Insight: An LLM-Driven Agentic Classroom-Feedback Application" (15-min talk + Q&A)

ADDITIONAL INFORMATION

Languages: English, Proficient Spanish

Interests: Climate Advocacy, Environmental Conservation, Data Science for Social Impact, Journalism, Creative Writing