

NIKI KARANIKOLA

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EDUCATION

Cornell Tech, Cornell University	New York, NY
MS in Applied Info Science & Info Systems – Connective Media , GPA: 4.06	May 2027
Relevant Coursework: Algorithms and Data Structures, ML Engineering, Applied ML, Deep Learning	
Bennington College	Bennington, VT

BS in Computer Science, GPA: 3.88

May 2023

PROFESSIONAL EXPERIENCE

Veolia North America, Machine Learning Engineer , New York, NY	Aug 2023 – June 2025
• Developed a RAG application using GPT-4, Langchain, and GCP Vector Search database to generate SQL code from natural language, reducing data access time from weeks to minutes.	
• Engineered a scalable LLM application with Gemini 2.0 Flash, Google Search tool, and Langchain to automate the generation of 18 competitor reports, delivering insights to sales and executives, increasing reporting frequency from biannual to monthly.	
• Integrated Cohere reranking algorithm to an internal information retrieval system, increasing context relevance by 20% (NDCG).	
• Deployed infrastructure pipeline using Cloud Run, App Engine, Cloud Load Balancing, and Cloud DNS in GCP, enabling CI/CD.	
• Built a genetic algorithm using Pymoo to codify tribal knowledge, enabling novice operators to optimize facilities.	
Veolia North America, Data Science Intern , Boston, MA	Feb 2023 – May 2023
• Improved a client acquisition model's f1 score to ~90% by applying feature engineering and feature selection methods, ~40% improvement over the baseline.	
• Deployed an API endpoint (REST API) on Google Cloud Run to deliver real-time model predictions to Salesforce.	
• Communicated technical solution to non-technical leadership using visualizations created with plotly and seaborn.	
Massachusetts Institute of Technology Data + Feminism Lab, ML Researcher , Cambridge, MA	Sep 2022 – May 2023
• Reduced the training dataset's size by 30% while maintaining high model performance with active learning sampling (NLP).	
• Conducted and evaluated research findings using experimental design across 4 datasets and 4 metrics.	
• Presented research findings at the ACM conference (70+ attendees) at Smith College and authored a Medium publication.	
3Degrees Inc., Full Stack Developer Intern , San Francisco, CA	Jun 2022 – Sep 2022
• Developed web app using React, JavaScript, CSS, and Node.js to catalog price data for the sales team.	
• Translated insights from 50+ stakeholder interviews into user-friendly wireframes in Figma, improving the user experience.	

PROJECTS

Raster2Seq Category Agnostic Pose Estimation (Python, PyTorch)	Nov 2025
<i>Trained a rasterized autoregressive sequence architecture to predict the pose graph of unseen query 2D images.</i>	
• Implemented a novel approach on category agnostic pose estimation, evaluated on MP-100 benchmark with PCK@0.2.	
CarePilot (Python)	Nov 2025

Built an all in one platform to understand our health easier at the K2 Think Hackathon (top 16 finalist out of 900).

- Created a 4-agent system using k2-think and CoT prompting to analyze lab data, insurance benefits, and generate claim appeals.

LEADERSHIP

Women in Data Science, Ambassador , New York, NY	Oct 2022 – Present
• Founded and raised funding for 3 WiDS initiatives at Columbia, CUNY, Bennington College, empowering female data scientists.	

TECHNICAL SKILLS

Coding Languages: Python, SQL, Java, C++, CSS, HTML, JavaScript

ML Tools: Pandas, numpy, scikit-learn, tensorflow, keras, scipy, pytorch, HuggingFace, xgboost, lightgbm, nltk, plotly, seaborn

Other Tools: Git, Docker, GCP, AWS, Terraform, Spark, Linux, Bash/Shell Scripting

CERTIFICATIONS

Professional Machine Learning Engineer Certification / Google Cloud	Sept 2024
Generative AI with Large Language Models / DeepLearning.AI & AWS	Jan 2024