

Aniket Dixit

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EDUCATION

University of Michigan

B.S in Computer Science, B.S in Linguistics

GPA: 3.56 / 4.00

Coursework: Conversational AI, Introduction to Artificial Intelligence, Database Architecture, Computer Organization, Statistics, Calculus III, Cryptography, Natural Language Processing, Computational Linguistics, Data Structures & Algorithms

Ann Arbor, MI

May 2025

SKILLS

Programming Languages: Python, SQL (Oracle, PostgreSQL), C/C++, Javascript

Machine Learning: PyTorch, TensorFlow, NLTK, Scikit-learn, Optuna, spacy

Data Science Tools: Tableau, Seaborn, matplotlib, pandas, numPy, GCP

Development: REST API, Flask, Prometheus, Kubernetes, Jira, MS Excel, Redis

WORK EXPERIENCE

University of Michigan Museum of Paleontology

Software Technician

Ann Arbor, MI

October 2021 – March 2022

- Developed and optimized a scalable, high-efficiency Python-based ETL pipeline using pandas, NumPy, and lxml to extract, clean, and standardize metadata from museum XML files, automating the processing of 5,000+ reconstructed CT fossil scans.
- Engineered 20+ high-precision photogrammetry models using RealityCapture, MeshLab, and OpenCV, streamlining image preprocessing, SfM/MVS reconstruction, and mesh refinement, improving fidelity and reducing processing time by 40%.
- Optimized query retrieval using PostgreSQL indexing, query optimization, and caching, reducing database latency by 20% to enable faster data access for large-scale research analysis and system efficiency.

PROJECT EXPERIENCE

Quiz Bowl Simulator

Independent Project

Chicago, IL

August 2023 – Present

- Engineered and deployed a full-stack Quiz Bowl platform using Flask, JavaScript, and HTML, leveraging RESTful API design and dynamic frontend rendering to optimize user engagement and response accuracy, boosting correct answers per packet by 25%.
- Engineered a scalable quiz server by developing a Flask REST API with secure session tracking (UUID4), CORS handling, and structured validation while integrating spaCy's NLP similarity scoring for AI-powered fuzzy answer matching and correction.
- Implemented a dual-layered database strategy by integrating PostgreSQL for structured, persistent storage and utilized Redis as a high-speed caching layer with a 30-second TTL reducing redundant database queries and improving API responsiveness.
- Engineered a robust ETL process using Python and SQLAlchemy, cleaning JSON-based quiz data with regex-powered HTML sanitization and text normalization

EcoData Heatmap Project

Team Member

Ann Arbor, MI

February 2023 – April 2023

- Extracted and preprocessed 200,000+ environmental data points by integrating university databases and collaborating with team members in order to develop an accurate data-driven Tableau heat map with TabPy, visualizing local Ann Arbor parks.
- Designed and developed high-impact, interactive data visualizations using Seaborn and Matplotlib to uncover key trends and patterns and presented insights to 20+ club members, empowering data-driven decision-making and strategic planning.
- Utilized Jira and Confluence to gather team feedback, developing a data-driven Agile product management plan that streamlined workflows, improving efficiency by 20% and enhancing cross-functional collaboration through clear project guidelines.

LEADERSHIP EXPERIENCE

Inter Cooperative Council

Finance Committee Board Representative

Ann Arbor, MI

August 2023 – May 2024

- Leveraged SQL, Microsoft Excel Power Query, and Snowflake for comprehensive trend analysis, assessing survey data on energy management inefficiencies, applying cost-benefit and sensitivity analysis to uncover \$5,300 in annual savings for ICC members.
- Analyzed Michigan state documentation to identify infrastructure issues and key compliance gaps across 20+ ICC residences.
- Partnered with ICC property managers to implement and communicate best practices, to enhance food safety standards and operational efficiency across 20+ ICC properties, ensuring compliance with FDA and local health regulations.