Benjamin Lerner

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Passionate about leveraging data engineering, software development, and machine learning to solve complex problems. Proficient in Python, SQL, and C++, with hands-on experience in data modeling, optimizing systems for performance, and object-oriented programming. Currently seeking a Summer 2025 internship where I can contribute to innovative technology solutions and further develop my skills in a collaborative, fast-paced environment.

Education

University of Michigan **Expected - May 2026**
Bachelor of Science in Computer Science *Ann Arbor, MI*
Bachelor of Arts in Spanish

Relevent Coursework: Programming and Data Structures, Advanced Data Structures and Algorithms, Computer Organization, Computer Science Theory

Skills

Languages: Python, SQL, C/C++, Javascript, R, HTML/CSS, Flutter
Tools: Pandas, React, FastAPI, AWS, Apache Airflow, MySQL/NoSQL, BigQuery, Linux, Git, VS Code
Others: Spanish (fluent), OOP, problem solving, teamwork, communication, adaptability, high-standards

Experience

Decido **May 2024 – July 2024**
Data Engineer Intern *Tel Aviv, Israel*

- Leveraged Pandas and NumPy for efficient data handling, transformation, and analysis, while utilizing OAuth 2.0 for secure authentication and authorization processes.
- Database Management with SQL: Managed and manipulated MPP databases using PostgreSQL and BigQuery.
- Developed API endpoints for managing company accounts and pages using FastAPI, and deployed the application on AWS EKS (Elastic Kubernetes Service) for scalable and efficient container management.
- Demonstrated test-driven development using Swagger to test API endpoints, ensuring accurate functionality and smooth integration with fronted systems.

Society of Hispanic Professional Engineers **September 2022 – Present**
Mentor *Ann Arbor, MI*

- Led STEM outreach initiatives to foster diversity and promote education within underrepresented communities.
- Mentored aspiring engineers with weekly meetings.
- Developed and applied networking skills through interactive seminars.

Projects

Natural Language Processing for Post Subject Identification | *C++* **June 2023**

- Developed a system to automatically classify the subject of Piazza posts using natural language processing and machine learning techniques.
- Implemented function objects, recursion, binary trees, templates, comparators, and map data structures, reinforcing knowledge of container ADTs, dynamic memory, and linked lists.

Mine Escape Simulation | *C++* **January 2023**

- Implemented a Mine Escape simulation by designing custom comparators, algorithms for rubble clearing, and streaming algorithms for dynamic data handling, leveraging priority queues and templated containers in C++.
- Applied inheritance and interface programming throughout the project.

Custom Database Query Language with Hash Table Management | *C++, SQL* **February 2023**

- Demonstrated expertise in managing hash tables and large data structures using C++ and SQL.
- Implemented a database management system capable of handling various operations, including table creation, data insertion, deletion, and querying, utilizing custom hash tables and binary search trees for efficient indexing and retrieval.

Drone Delivery Optimization using Algorithms | *Python, C++* **April 2022**

- Developed and implemented optimization algorithms, including Traveling Salesperson and Knapsack, to enhance efficiency in drone delivery logistics.
- Utilized Python to build and test these algorithms, resulting in optimized route planning and resource allocation.