Elliott Yoon

elliottyoon.github.io ◇ elliottyoon@u.northwestern.edu

About Me

Online Presence Github (elliottyoon) — LinkedIn (elliottyoon)
Languages C, C++, Golang, Java, Javascript, Python, SQL, Typescript

Education

Northwestern University Evanston, IL (2021-2025)
M.S. Computer Science (4.00 GPA), B.A. Mathematics (3.80 GPA)

- ICPC (2024 NAC-NAPC), Concerts @ Bienen, Club Ice Hockey.
- **TA for**: CS 339: Databases (Sp24), Math 220-1: Calculus (Fa22/23, Wi24), CS 396: Artificial Life (Wi23).

Employment

Incoming Software Engineer Intern Washington, DC (June 2024 - August 2024)
Palantir Technologies

- Incoming intern on the Gotham team.

Software Engineer Intern Strongsville, OH (May 2023 - September 2023)
Union Home Mortgage

- Created lightweight configurable widgets that integrate with Azure Devops and track productivity metrics.
- Extended the Azure SDK with Typescript and React to build an extensible widget development framework.
- Utilized the Azure DevOps API to retrieve team and project-specific data through RESTful API requests.

Data Engineer Intern Strongsville, OH (May 2022 - August 2022)
Union Home Mortgage

- Automated over 90% of digital reporting workflow by creating and refactoring Azure Data Factory pipelines to improve data extraction, transformation, and load tasks within Azure cloud data lakes and data warehouses.
- Saved over 100 hours of manual work by creating automated SQL functions for database migration efforts.
- Scripted Avro file type ingestion using Python and Databricks to reduce manual pipeline work by over 80%.

Projects

Database Management System — *C++* (January 2024 - March 2024)

- Developed a relational database management system to execute SQL queries and efficiently access stored data.
- Created a thread-safe buffer pool manager with an LRU-k replacement policy and a disk-backed index for aggregation and join operations. Optimizations implemented include index scans, top-N sort limits, and hash joins.

Compiler — *C++* (January 2023 - March 2023)

- Generates x86 Intel Assembly from a C-based language. Used tiling methods for efficient instruction selection. Implemented liveness testing, graph coloring, and spilling algorithms for register allocation.

2048 Racer — *Go, React, Docker, Websockets* (June 2022 - August 2022)

- Enables real-time instances of the game 2048 in which players can race one another. Developed minimax backtracking algorithm with alpha-beta pruning against which users can compete. (It's successfully beat the game!)