

Elliott Yoon

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About Me

Online Presence Github ([elliottyon](#)) — LinkedIn ([elliottyon](#))
Languages C, C++, Golang, Java, Javascript, Python, SQL, Typescript

Education

Northwestern University Evanston, IL (2021-2025)
B.A. Mathematics, Computer Science (3.9/4.0 GPA)

- **Miscellaneous:** ICPC (2024 NAC-NAPC), Concerts @ Bienen, Club Ice Hockey.
- **Teaching assistant:** Math 220-1: Calculus (F22, F23, W24); CS 396: Artificial Life (W23).
- **Relevant coursework:** Abstract Algebra, Advanced Algorithms, Compilers, Computer Systems, Database Systems, Data Structures & Algorithms, Functional Programming, Real Analysis, Probability, Web Development

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 application that integrates with Azure Devops and tracks productivity metrics.
- Extended the Azure SDK with Typescript and React to build a modular, extendible widget development framework that has been used post-internship to quickly develop multiple additional metrics widgets requested by C-suite executives in technical management meetings without sacrificing software dev team work hours.
- Utilized the Azure DevOps API to retrieve team and project-specific data through RESTful API requests.
- **Leveraged knowledge in** Azure cloud services, data visualization, React, Typescript, Webpack bundling.

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 to assist in database migration efforts. Scripted Avro file type ingestion using Python and Databricks to reduce manual pipeline work by over 80%.
- **Leveraged knowledge in** Azure Data Factory, Microsoft SQL Server, relational databases, Python.

Projects

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

- Developed a relational database management system to SQL execute 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!)