Elliott Yoon

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About Me

Online Presence Github (elliottyoon) — LinkedIn (elliottyoon)
Technical Stack C, C++, Flask, Javascript, Python, React, SQL, Tailwind, Typescript

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.
· Used Typescript and React to extend the Azure SDK, enabling modular component-based widget development.
· Utilized the Azure DevOps API to retrieve team and project-specific data through RESTful API requests.
· Learned and utilized the company's unit testing framework to comprehensively test code robustness.
· **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 SQL functions and stored procedures 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 - February 2024)

· Developed a relational database management system to execute queries and efficiently access stored data.
· Created a thread-safe buffer pool manager with an LRU-k replacement policy and a disk-backed hash index for aggregation and join operations. Implemented rule-based optimizations for bottom-up plan construction.

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!)

Education

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

· **Miscellaneous**: Club Ice Hockey, Concerts @ Bienen, First-year Award for Excellence in Mathematics 2022.
· **Relevant coursework**: Compilers, Computer Systems, Database Systems, Data Structures & Algorithms, Differential Forms, Functional Programming, Real Analysis, Abstract Algebra, Probability, Web Development
· **Teaching assistant**: Math 220-1, Calculus (F22, F23, W24); CS 396, Artificial Life (W23).