

# Elliott Yoon

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## Education

### Northwestern University

*Bachelor of Computer Science (4.0/4.0 GPA), Mathematics (3.8/4.0 GPA)*

Evanston, Illinois

*Sept 2021 — June 2025*

- **Courses:** Compiler Construction, Computer Systems, Data Structures & Algorithms, Differential Forms, Functional Programming, Honors Real Analysis, Honors Abstract Algebra, Probability & Stochastic Processes, Web Development
- **Teaching Assistant:** Differential Calculus (Math 220-1), Artificial Life (CompSci 396)

## Skills

- **Languages:** C, C++, Go (Golang), HTML/CSS, Javascript, Python, SQL, Typescript
- **Technologies:** Azure, Bootstrap, Docker, Flask, Git, Heroku, React, Scikit-learn, Tailwind, Unix, Vim

## Experience

### Software Development Intern

Union Home Mortgage

Strongsville, Ohio

*May 2023 — Aug 2023*

- Created lightweight configurable application that integrates with Azure DevOps and tracks development productivity metrics.
- Used Typescript and React.js to extend the Azure SDK and enable 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 and quality.
- Collaborated with other IT interns to identify and analyze fixed and per-loan costs of over 100 third-party applications used in the company's technology stack. Presented results in executive meeting to CEO, CIO, and SVP.
- **Leveraged knowledge** in Azure cloud services, C#, Git, React.js, Typescript, Webpack bundling.

### Software Engineering Launch Fellow

Palantir

Denver, Colorado

*March 2023*

- Designed and implemented a program in C++ which calculates Levenshtein edit distance between two strings of letters.
- Worked with other fellows to design the infrastructure for an emergency unit distribution and dispatch service. Analyzed tradeoffs and benefits of product features with an emphasis on efficiency within different constraints.
- **Leveraged knowledge** in C++, dynamic programming, system design.

### Data Engineering Intern

Union Home Mortgage

Strongsville, Ohio

*May 2022 — Aug 2022*

- Automated over 90% of digital reporting workflow by creating and refactoring Azure Data Factory pipelines to improve data extraction, transformation, and load (ETL) 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.

### Data Science Fellow

Correlation One (DS4A)

Remote

*Feb 2021 — Aug 2021*

- Used Python to conduct regression analysis, create visualizations, and test for correlations in aggregate data quantifying Amazon Rainforest deforestation and measures of Brazilian socioeconomic health.
- Leveraged scikit-learn, matplotlib, seaborn, folium, scipy, and pandas to wrangle, analyze, and visualize data.
- Reported final analysis to an audience of over 1000 people through a virtual presentation and an interactive dashboard.
- **Leveraged knowledge** in data visualization, Jupyter, Python, statistics, SQL, Tableau.

## Projects

Compiler — C++

*Jan 2023 — Mar 2023*

- Built compiler that generates Intel x86 assembly from a modern C-based language.

2048Racer — Javascript, Golang

*Jun 2022 — Aug 2022*

- Built full-stack web app that enables users to race each other in real time on concurrent instances of the game 2048.
- Implemented 2048 AI using minimax + alpha-beta pruning that successfully reached the 2048 tile and beat the game.
- Enabled CI/CD for the React.js front end with Vercel. Utilized Websockets for persistent web connection, and Docker to containerize and compose back end web server with Nginx reverse proxy.

GitHub ([github.com/elliottyoon](https://github.com/elliottyoon))