

Elliott Yoon

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Education

Northwestern University

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

Evanston, Illinois

Sept 2021 — June 2025

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

Skills

- Languages: C, C++, C#, Go (Golang), HTML/CSS, Javascript, Python, SQL
- 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 application that tracks and visualizes customizable development team productivity metrics, integrating onto Azure DevOps dashboards and interacting with other widgets.
- Enabled modular component-based widget development with Typescript and React.js by developing additional utility functions and types that extend the Azure SDK.
- 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 company president.

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%.

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.

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.

Github (github.com/elliottyoon)

Honors and Awards

Palantir Launch Fellow

2023

NU Award for Excellence in Mathematics by a First-year Student

2022

U.S. Presidential Scholar Nominee

2021

National Merit Scholarship Finalist

2021

Ohio Governor's Scholarship (Declined)

2021

USF Tradition of Excellence Award (Declined)

2021