

ELLIOTT YOON

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Education

Northwestern University

Evanston, IL (September 2021 -)

Bachelors of Mathematics

- 4.00/4.00 CS GPA; Dean's List 2021-22. Award for Excellence in Mathematics by a First-Year Student 2022
- Relevant coursework: Data structures & Algorithms, Computer Systems, Web Development, Object-oriented Programming, Functional Programming, Imperative Programming in C/C++

Experience

Union Home Mortgage

Strongsville, OH (May 2022 -)

Data Engineering Intern

- Scripted data warehouse ingestion and transformation of files from Azure Data Lake with Python and Databricks.
- Created data factory pipelines to automate ETL processes. Wrote SQL queries to unit test existing pipelines; validated and deprecated existing pipelines accordingly.
- Facilitated drilldown reporting by designing both relational and non-relational models in the data warehouse.

Correlation One

Remote (February - August 2021)

Data Science Fellow

- Performed statistical analysis (correlation analysis, chi-squared tests, and regression models) on extracted time series aggregate data to analyze relationship between Amazon deforestation and socioeconomic health of Brazilian states; see *Correlating Brazilian Deforestation and Economics* below.
- As team leader, coordinated meetings and oversaw group of 5 fellows.

Personal Projects

2048 Racer — Javascript, Go

(June 2022 -)

- Developed web application that allows users to test game AI's or race one another in the popular game 2048.
 - Built front-end web application in React (Javascript) and back-end web server with Gorilla (Go).
 - Developed AI to beat the game using minimax backtracking algorithm with alpha-beta pruning.
 - Utilized Websockets to enable real-time communication between the client browser and the backend web server.
 - Deployed React app with Vercel and back-end web server via Nginx reverse proxy and Docker container.

Pineapple Pics — Javascript, Python, SQL

(March 2022 - June 2022)

- Developed full-stack RESTful Instagram clone.
 - Built REST API endpoints on a Flask web server to handle requests; automated API testing with Python.
 - Utilized React.js to render data from a PostgreSQL database via the Flask server REST API endpoints.
 - Authenticated users using cookies and JSON web tokens.

Aim Trainer — C++

(March 2022)

- Created an aim-training application for FPS games using OOP principles and MVC patterns.

Correlating Brazilian Deforestation and Economics — Python, SQL

(March - August 2021)

- Performed data cleaning with Pandas and SQL, visualization with Seaborn/Matplotlib, and analysis using scikit-learn and Scipy. Formalized results in Tableau dashboard and written executive summary.
- Reported final analysis and insights to an audience of over 1000 people.

Github (<https://github.com/elliottyoona/>)

Personal Website (<http://elliottyoona.github.io>)

Technical Skills

Libraries

MatPlotLib, NumPy, Pandas, Seaborn, Tensorflow

Languages

C, C++, Golang, Javascript, Java, Python, Racket, SQL, x86 Assembly

Technologies

Bash, Docker, GDB, Git, Heroku, Linux, Microsoft Azure Cloud

Web Development

HTML/CSS, Flask, React, PostgreSQL, Websockets