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 SQL stored procedures and user-defined functions to optimize SQL Server triggers.
· Built data factory pipelines to automate ETL processes. Wrote SQL queries to unit test existing pipelines.
· Facilitated drilldown reporting by designing both relational and non-relational models in the data warehouse.
· *Worked with Microsoft **SQL Server** Management Studio and **Azure Cloud** (Data Factory, Data Lake, Synapse).*

Correlation One (DS4A) Remote (February - August 2021)
Data Science Fellow

· Performed statistical analysis (correlation analysis, chi-squared tests, and regression models) on extracted time series data to analyze relationships between Amazon deforestation and socioeconomic health of Brazilian states.
· As team leader, coordinated meetings and oversaw group of 5 fellows. Formalized results in written executive summary and reported final analysis and insights to an audience of over 1000 people.
· *Worked with **Python** (Jupyter, Numpy, Pandas, Scikit-learn, Scipy), **SQL** (SQLite), and **Tableau***

Personal Projects

2048 Racer — *Javascript, Go* (June 2022 -)

· Developed web application that allows users 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 **minimax** backtracking algorithm with **alpha-beta pruning** that successfully beat the game.
  – Utilized **Websockets** to enable real-time communication between the client browser and backend web server.
  – Deployed React app with Vercel and back-end web server with an **Nginx reverse proxy** and **Docker**.

Pineapple Pics — *Javascript, Python, SQL* (March 2022 - June 2022)

· Developed full-stack RESTful Instagram clone built using an MVC design pattern.
  – 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**.

C++ Games — *C++* (March 2022)

· Built an FPS aim-training application and a Reversi clone using OOP principles and MVC design patterns.

Portfolio Website — *https://elliottyoon.github.io*

· Vanilla HTML, CSS, & Javascript website to showcase selected portfolio projects and design skills.

Github (https://github.com/elliottyoon/)

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, Tailwind, Vue/Nuxt, Websockets