# ELLIOTT YOON

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## Skills

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| **Websites** | Github (elliottyoon) — Visual Portfolio (https://elliotts-portfolio.vercel.app) |
| **Languages** | C, C++, CUDA, Golang, Javascript, Java, Python, Racket, SQL, x86 Assembly |
| **Certifications** | Machine Learning (Coursera), DS4A Honors (Correlation One) |

## Education

**Northwestern University**                                               Evanston, IL (September 2021 - Expected June 2025)
B.A. Computer Science

- **GPA:** 4.00 Major/3.80 Overall. Award for Excellence in Mathematics by a First-Year Student 2022.
- **Relevant coursework:** Compiler Construction (current), Computer Systems, Data Structures & Algorithms, Programming Massively Parallel Processors with CUDA (current), Introduction to Web Development
- **Teaching Assistant:** Math 220-1 Differential Calculus (Fall 2022), CS 396 Artificial Life (Winter 2023) Sound Technician & Stage Manager for Concerts @ Bienen (2021 - ), Division III Club Ice Hockey (2021 - )

## Experience

**Union Home Mortgage**                                               Strongsville, OH (May 2022 - August 2022)
Data Engineering Intern

- Tested and refactored dozens of existing Azure Data Lake pipelines and SQL stored procedures.
- Scripted Avro file ingestion using Python in Databricks to reduce manual pipeline work by over 80%.
- Improved 90% of reporting workflow by automating ETL data processes with SQL stored procedures.
- Saved over 100 hours of work defining table fields within database migration efforts by creating SQL functions.
- Reduced over 2 hours of daily work by creating Azure scheduled trigger pipelines that automated ingestion, deletion, and transformation tasks within Azure Data Lake, Azure Synapse Database, and Microsoft SQL Server.

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

- Cleaned, visualized, and analyzed data quantifying Amazon deforestation and Brazilian economic health.
- Coordinated meetings as team lead for group of 5. Reported final analysis to an audience of over 1000 people.
- Gained working proficiency in Jupyter, Numpy, Pandas, Scikit-learn, Scipy, SQL, and Tableau.

## Personal Projects

**2048 Racer** — *HTML/CSS, Javascript, Go*                                               (June 2022 - August 2022)

- Built React web application that lets users race each another in real time in the popular game 2048.
  - Implemented heuristic minimax backtracking algorithm optimized with alpha-beta pruning that successfully beat the game on its own.
  - Utilized Websockets for persistent client-server interactions, Vercel for front-end CI/CD, and Docker for composing + containerizing Nginx reverse proxy with back-end web server.

**Pineapple Pics** — *HTML/CSS, 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 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.