

Ryan Groch

SOFTWARE & WEB DEVELOPER

📞 (+1) 847-909-6912 | ✉️ ryan.w.groch@gmail.com | 🏠 ryan-groch.github.io/portfolio/ | 📷 ryan-groch | 🌐 ryan-groch

Objective

To pursue an internship in software development of any kind. I'm looking for a position where I can learn from experienced team members while applying and deepening my knowledge of standard practices.

Skills

Languages: HTML/CSS/JavaScript, TypeScript, Python, Bash, SCSS, C++, SQL

Frameworks and Libraries: React.js, Next.js, NumPy/Pandas/Matplotlib

Other Technologies: Git, GitHub, Linux, Node.js, NPM

Projects

Ecommerce Store

January 2023 - Present

LIGHTSPEED TRIGGERS

- Used Next.js to create a full-stack application connected to a MySQL database with the Prisma ORM as an abstraction over the database.
- Created a performant SEO-optimized landing page.
- Implemented CRUD functionality on the back end to allow the site administrator to create customization options for their users.
- Integrated with Stripe to handle purchases.
- Deployed the project to a Linux server and ensured best security practices.

ComEd Prices

December 2023

GITHUB.COM/RYAN-GROCH/COMEDPRICES

- Used the Tauri framework to write a desktop application with TypeScript.
- Used with the official ComEd API to retrieve and display electricity prices.
- Configured GitHub Actions to automatically generate binaries for a variety of operating systems.

Image Cropper

March 2023

RYAN-GROCH.GITHUB.IO/IMAGE-CROPPER/

- Wrote an algorithm in TypeScript to crop an image in a circular pattern.
- Utilized HTML canvas for image processing.
- Used GitHub Actions for automatic deployment.

Othello AI

April 2022 - November 2022

RYAN-GROCH.GITHUB.IO/OTHELLO-AI-V2/

- Implemented the rules of the Othello game in Typescript, and created a UI with React.js which tracks the state of the game.
- Used the minimax algorithm with alpha-beta pruning to create an AI that demonstrates a reasonable quality of play.
- Made use of web workers and asynchronous programming to avoid freezing the UI as the algorithm performs computations.

Sudoku Generator

March 2022

RYAN-GROCH.GITHUB.IO/SUDOKU-V2/

- Used recursive backtracking to write algorithms to generate and solve random Sudoku puzzles.
- Created a user interface to allow the user to play through the puzzles.
- Implemented common utilities into the game such as undoing previous moves and taking notes.

Education

Northern Illinois University

Palatine, IL (Harper College)

B.S. IN COMPUTER SCIENCE

January 2024 - December 2025

- Relevant Coursework: Programming in C++, Computer Security, Databases, IBM Assembly.
- In progress; anticipated completion is in December 2025.

Northern Illinois University

DeKalb, IL

B.S. IN PSYCHOLOGY

August. 2017 - December. 2020

- GPA: 4.0; Graduated with honors; summa cum laude.
- Relevant Coursework: Data Science (Python & R), Probability & Statistics, Calculus I - Calculus III.
- Minor in philosophy.
- Worked in a university neuroscience lab (August 2019 - March 2020).
- Participated in eight years of marching band (high school & college).