

Ryan Groch

ASPIRING SOFTWARE DEVELOPER

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Objective

To leverage my diverse skill set in computer science and explore opportunities across various technology domains, such as mainframes and web development.

Skills

Languages: HTML/CSS/JavaScript, TypeScript, S/370 Assembly, Python, PHP, Bash, C++, Rust, SQL

Frameworks and Libraries: React.js, Next.js, Laravel, TailwindCSS

Other Technologies: Git, GitHub, Linux, Vista TN3270 Terminal Emulator

Projects

Retrieve Jobs

May 2024 - Present

GITHUB.COM/RYANGROCH/RETRIEVE-JOBS

- **Technologies:** Next.js, TypeScript, React.js, TailwindCSS, Rust
- Developed a web application enabling users to interact with mainframe held queues by listing, downloading, and purging job outputs via FTP.
- Implemented seamless deployment to Vercel, Netlify, and Render with zero server configuration, using a custom build-time solution that integrates FTP functionality via a lightweight command-line tool for file transfers.
- Integrated AES-256 encryption for storage of mainframe credentials in secure, HTTP-only cookies, enabling a safe "stay logged in" feature without storing plaintext passwords.
- Successfully serving the needs of several dozen users, maintaining consistent uptime with no currently reported issues in production.
- Developed a desktop version using Rust, reusing the same frontend code as the web app, with FTP calls adapted to the desktop environment.

Ecommerce Store

January 2023 - Present (in progress)

LIGHTSPEEDTRIGGERS.COM

- **Technologies:** PHP, Laravel, TypeScript, React.js, Stripe API, Linux
- Developed a full-stack web application, featuring a flexible product configuration that allows users to select from various interchangeable options based on database contents.
- Integrated Stripe API for one-time payment transactions.
- Deployed the project to a Linux server via manual SSH.
- Worked independently to translate requirements into functional features, addressing ongoing changes and feedback to refine the product.

Work Experience

Northern Illinois University

TEACHING ASSISTANT - INTRO TO ASSEMBLY LANGUAGE (S/370)

August 2024 - Present

- Provided individualized instruction and support to students.
- Answered student inquiries and posted clarifying announcements on Blackboard to address common questions.
- Utilized Blackboard for grading, and communicated with students via email and video/voice calls.
- Collaborated with fellow TA and instructor to establish grading standards and resolve grading decisions.

Education

Northern Illinois University

Palatine, IL (Harper College)

B.S. IN COMPUTER SCIENCE

January 2024 - May 2025 (anticipated)

- Relevant Completed Coursework: Programming in C++, Computer Security, Databases, S/370 Assembly.
- Relevant Current Coursework: Data Structures & Algorithms, Enterprise Application Development (JCL, COBOL), Unix & Networking, Computer Architecture

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).