Ryan **Groch**

SOFTWARE ENGINEER

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Summary

Software engineer with experience in web development and mainframe systems. Builds web interfaces, works in both Linux and z/OS environments, and is knowledgeable in modern AI tooling.

Skills

Languages: HTML/CSS/JavaScript, TypeScript, Python, C#, PHP, Shell Script (Bash), C, SQL
Mainframe Languages/Skills: HLASM, COBOL, JCL, ISPF (Vista TN3270 Terminal Emulator), Zowe
Frameworks and Libraries: React.js, Next.js, TailwindCSS
Other Technologies: Git, GitHub, Linux, Docker
ZXplore Badges: Concepts, Advanced, All-Star

Projects

Retrieve Jobs

GITHUB.COM/RYANGROCH/RETRIEVE-JOBS   *May 2024 - December 2024*

- **Technologies:** Next.js, TypeScript, React.js, TailwindCSS, FTP
- Developed a web application enabling users to interact with JES on mainframes by listing, downloading, and purging job outputs via FTP.
- Reliably serves the needs of 100+ users and maintains consistent uptime with no issues.
- Used AES-256-GCM encryption to safely store credentials.
- Utilized libraries and scripts to enable the application to deploy to serverless environments without configuration.

Open Source Contributions

Dyad

GITHUB.COM/DYAD-SH/DYAD   *January 2026 - February 2026*

- **Technologies:** TypeScript, React.js, Linux, Electron, Generative AI (e.g., ChatGPT, Gemini, Claude)
- Contributed to an AI-powered developer tool with 20K+ users that generates web applications.
- Improved the build process to support an additional 33% of Linux distributions.
- Made UI enhancements to improve user experience and accessibility.

Experience

Teaching Assistant - Enterprise Application Environments (JCL/COBOL/HLASM)

NORTHERN ILLINOIS UNIVERSITY   *August 2024 - May 2025*

- Used Blackboard for grading and feedback for 30+ students each semester.
- Provided individualized instruction to students as needed. Assisted students with issues such as:
  - Learning how to debug.
  - ABENDs (in both COBOL and Assembly) and JCL errors.
  - Software installation (Vista TN3270, Zowe).

Education

Northern Illinois University   *DeKalb, IL & Palatine, IL*

B.S. IN COMPUTER SCIENCE   *January 2024 - May 2025*

- GPA: 4.0; Summa cum laude.
- Relevant Coursework:
  - Enterprise Application Environments (JCL, COBOL, HLASM), Intro to IBM Assembly Language.
  - Computer Architecture, Operating Systems (process scheduling, locks/mutexes/events, virtual memory)

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.
- Participated in eight years of marching band (high school & college).