

John Mulligan

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Software Engineer building and deploying web applications, backend services, and automation tools for real-world users. Seeking software engineering co-op opportunities for Spring, Summer, and Fall of 2027. Strengths in:

- Collaborating effectively to solve complex problems
- Applying object-oriented designs to write organized, well-documented code
- Explaining technical concepts to non-technical audiences
- Leveraging commercial driving experience to approach software engineering with real-world impact

Education

Bachelor of Science - Software Engineering, Rochester Institute of Technology
Advanced Courses in Computer Science, University of Chicago

May 2029
Jun 2025

Relevant Experience

R6TrackerBot | *Personal Project*

Mar 2024 – Present

Discord application that allows users to conveniently look up their Rainbow Six Siege ranks and statistics

- Implemented a Discord application that has looked up over 20,000 Rainbow Six Siege user profiles
- Refactored the backend to cache essential user information, reducing API usage by over 50%
- Iterated over 5 additional versions, with additional features such as player tracking for over 300,000 banned users
- Promoted the application across multiple platforms, resulting in adoption across more than 2,000 communities

Tools: Python, discord.py, aiohttp, REST APIs, PostgreSQL, DigitalOcean

Stork Fake Casino | *Personal Project*

Nov 2025 – Jul 2026

React.js web application where users can play casino/non-casino games in both single/multiplayer environments with fake money

- Designed the application from the ground-up focusing on maintainable architecture for future expansion
- Developed a PostgreSQL-backed service for user registration, statistics and leaderboard functionality
- Expanded the application with over 5 unique games detailed statistic tracking
- Deployed the website with automated Github Actions to a local machine via Cloudflare Zero Trust

Tools: React.js, HTML/CSS, JavaScript, PostgreSQL, Nginx, PM2, LetsEncrypt, Cloudflare

CompServer | *Academic Project*

Feb 2024 – Jun 2025

Web application designed on a team of 5 students and faculty to streamline competition setup for a high school robotics team

- Created domain models and requirements documents before implementing to ensure stakeholder approval
- Implemented interactivity using REST APIs and HTMX to build dynamic HTML/CSS web forms
- Tested the application with unit tests, including an automated CI/CD Pipeline to run tests on every commit and pull request
- Deployed to Google Cloud and partnered with faculty to configure a domain/HTTPS certificate

Tools: HTML/CSS, Django, HTMX, REST APIs, HTTP/HTTPS, Google Cloud, LetsEncrypt

Uno on JavaFX | *Academic Project*

Feb 2023 – Jun 2023

JavaFX application where users can play the card game Uno with each other on a local network

- Coordinated with 4 students to iterate through three Scrum-like development cycles to satisfy final project requirements
- Implemented compatibility with multiple backend technologies, including Serialization, JSON and SQLite
- Audited functionality and usability of the application via unit testing, ensuring compatibility between operating systems
- Deployed the application to a local network, allowing students to connect and play Uno with each other

Tools: Java, Serialization, SQLite, JavaFX, Scrum-like process, Networking

Professional Experience

Software Consultant, Independent Contractor

May 2026 – Present

- Completed required state and IRS registrations and filings to operate as an officially registered sole proprietor
- Compiled financial and operational reports from a legacy system to support business analysis and decision-making
- Transformed legacy operational data into clear, auto-generated reports for company leadership

Operations Supervisor, Johnson Bros. Amusements LLC

Jun 2021 – Aug 2026

- Managed daily operations across key park attractions, managing guest services, crowd management, and safety compliance
- Performed on-site IT support, diagnosing and resolving issues with network connectivity, email systems, and POS hardware

Teaching Assistant, Rochester Institute of Technology

Aug 2026 – Present

Commercial Driver (CDL Class B)

Jul 2025 – Present