

Jillian Manguba

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EDUCATION

Bachelor of Science, Computer Science

University of Manitoba

Minor in Statistics

Expected Graduation: Feb. 2025

- Relevant Coursework: Software Engineering 1 and 2, Project Management, Databases Concepts and Usage, Human Computer Interaction 1, Distributed Computing, Computer Organization.

WORK EXPERIENCE

Junior System Analyst

Manitoba Emergency Management Organization (Manitoba EMO)

Jan. 2024 – Present

- Played a key role in developing a new application solution (BCA Tool) and contributed to the ongoing development and maintenance of the HRVA Tool mid-project. Worked across the front-end, middle-end, and back-end, implementing features, optimizing workflows and deploying to Azure Web App.
- Engineered dynamic, responsive UIs with Next.js integrated with RESTful APIs.
- Collaborated with team members to solve complex state management challenges using React Hooks and Context API, improving data flow efficiency and reducing unnecessary re-renders.
- Facilitated team discussions to troubleshoot issues, optimize workflows, and ensure seamless integration of new features.
- Translated technical concepts to the project manager, director, and subject matter experts contributing to decision-making through clear documentation, presentations, and collaborative discussions.
- Developed a Power BI report for an internal SharePoint site, visualizing real-time updates from the MECC (Manitoba Emergency Coordination Centre) activation level table, enhancing situational awareness for stakeholders.

Junior Programmer

Ubisoft Winnipeg

Sept. 2022 – Dec. 2022

Co-op Work Term 2

- Worked both independently and collaboratively with programmers and QA to debug and optimize a specific system within an unannounced game, improving performance, and refactoring C++ code to ensure high-quality gameplay.
- Adapted quickly to Ubisoft's internal tools, learning proprietary systems to support content creation and production pipelines.
- Participated in the Nova Women in Leadership program, developing leadership skills, networking with industry professionals, and gaining insights into career growth in tech. Concluded the program by presenting key learnings and takeaways to peers and industry leaders, reinforcing communication and presentation skills.

Programmer/Analyst (Java Web)

Agriculture and Agri-Food Canada (AAFC)

Jan. 2022 – Apr. 2022

Co-op Work Term 1

- Developed an application which stores data and draws reports from the current database structures using Java Spring Boot, and Vue.js (bootstrap, vuex, axios).
- Coordinated with two interns and senior developer to brainstorm and implement ideas and feedback into website development and kept track of the work through Jira.

PROJECTS

Cat Journal (CATJ)

Nov. 2024 – Jan. 2025

Web Application

- Led a team of three students, ensuring seamless collaboration and delivery of a polished final product.
- Represented the university at Devs' Den, a live pitch competition at CUSEC, where we showcased CATJ to industry professionals.
- Developed a web application using Next.js with Supabase as the SQL database, deployed on Vercel, and implemented Material UI for the user interface.

Bookshelf

Jan. 2024 – Apr. 2024

Web Application

Software Engineering II (COMP 4350)

- Designed and developed full-stack features, including statistics display, average reading speed and ratings, and book progress tracking.
- Implemented seamless integration of front-end and back-end components using the PERN stack (PostgreSQL, Express, React, Node.js).
- Collaborated with a team of five to deliver the project on time, adhering to agile methodologies.

RBM Photobooth

July 2023 – Nov. 2023

Web Application

Personal Project

- Designed and developed a responsive website for a photo booth business, enhancing its online presence and client engagement.
- Implemented the project using React and Tailwind CSS, ensuring a modern and user-friendly interface.
- Managed deployment and maintenance via GitHub and facilitated continuous updates.

UManitoba CSSA's 72-Hour Game Jams

Circuit Breaker - Puzzle RPG Game

Jan. 2022

- Collaborated with a team of 9 students, fostering strong communication and teamwork to design and develop a puzzle-based RPG using the Godot engine.
- Facilitated brainstorming sessions, aligning diverse ideas into a cohesive gameplay experience.
- Focused on gameplay mechanics and level design, ensuring engaging player interactions while integrating peer feedback.

Costco Parking Simulator - Simulation Game

Jan. 2023

- Developed a parking simulation game in Unity with a team of 7 students, implementing realistic mechanics.
- Designed and refined UI elements to enhance user experience and game functionality.

Health Tracker

Sept. 2021 – Apr. 2022

Web Application

Human-Computer Interaction I (COMP 3020)

- Developed and designed a web application with a variety of features through a series of prototypes using HTML, CSS and Javascript.
- Mentored team members on best practices for using Git and GitHub, enhancing version control workflows and fostering efficient collaboration within the development process.

Task Tackler

Feb. 2021 – May. 2022

Android Application

Software Engineering I (COMP 3350)

- Using Android Studio, Java, and XML, developed a hierarchical to-do list application, contributing to feature implementation, test case writing, and code reviews, resulting in a user-friendly app.

EXTRACURRICULAR INVOLVEMENT

Website Committee Member

Oct. 2024 – Present

University of Manitoba Women in Computer Science (UMWICS)

- Collaborating with a team to design and develop dynamic and user-friendly web application pages using VueJS, CSS, and HTML.
- Enhancing the website's user experience and functionality through responsive design principles and modern development practices.

President

Apr. 2023 – Apr. 2024

University of Manitoba Women in Computer Science (UMWICS)

- Led a team of seven executives, fostering a collaborative and inclusive environment to advance the club's mission, while overseeing operations and acting as the signing authority to ensure smooth execution of initiatives.
- Coordinated and facilitated meetings, engaging members, delegating tasks effectively, and ensuring strategic alignment.
- Served as the primary spokesperson, representing UMWICS at university and industry events, strengthening partnerships with faculty, students, and external organizations.

Events Coordinator

Jan. 2022 – Apr. 2023

University of Manitoba Women in Computer Science (UMWICS)

- Managed all aspects of event planning, successfully executed 3 large events with attendance ranging from 20 to 150 participants.
- Communicated with professionals in the field to secure mentors and sponsor events, ensuring successful partnerships.
- Coordinated with professors and student speakers to schedule class presentations, ensuring smooth delivery, contributing to the overall success of each event.

TECHNICAL SKILLS

Languages: Java, JavaScript, R, Python, HTML, CSS, C/C++, TypeScript

Frontend: React, Next.js, Vue.js, Bootstrap, Tailwind CSS

Backend: Spring Boot, Node.js, Express, GraphQL, REST APIs

Testing Frameworks: *Java:* JUnit, Mockito, Espresso | *JavaScript:* Jest | *Python:* unittest

Tools: Git, GitHub, GitLab, Docker, Azure DevOps, Android Studio, Confluence, Jira, Perforce, CMake

Databases: SQL, MySQL, PostgreSQL, MongoDB, SQLite