

# Vansh Rastogi

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## Education and Awards

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### Bachelor of Computer Science Honours (Co-op Option)

GPA: 4.19/4.50

International Undergraduate Student Scholarship

International UG. Student Entrance Scholarship Tier 1

Undergraduate Student Research Award

*University of Manitoba*

*January 2023 - Present*

## Technical Skills

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### Coding Languages

Java, JavaScript, Python, C, C++, R, MySQL

### Frameworks & Libraries

React, Node.js, Express.js, PyTorch, Firebase, MongoDB

### Development Tools

Visual Studio Code, IntelliJ, CLion, RStudio, Unix, R Markdown, Git

### Other Tools

Powershell, API, MS Teams, Postman, ML

## Research Experience

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### Undergraduate Student Research Assistant

*Department of Computer Science - Supervised by Dr. Azadeh Tabiban*

*May 2025 - Present*

*University of Manitoba*

- Engaged in collaborative research with a graduate student in the FOCUS Lab, working on evading provenance-based intrusion detection systems (PIDS) using Python, PyTorch, and graph neural networks by mimicking benign activities around malicious nodes.
- Improved evasion efficiency on multiple datasets by tuning hyperparameters in different stages of the evasion methodology, and trained PIDS models with Word2Vec/FastText embeddings to compare performance across IDS's.

## Projects

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### U of M Spaces – The Ultimate U of M Navigation Guide

*React, Express.js, JS Rest API, MapBox GL, Git, Vite*

*February 2025*

*Hackathon Project*

- Developed an interactive, dark-themed 3D campus map using the Mapbox GL API, enabling precise visualization of study spaces with pinpoint coordinates.
- Provided detailed space information including images and timings, with dynamic updating location status.
- Provided seamless navigation by providing an optimal path from user's current location to the building of interest.

### V-Chat – App for Real-time messaging between users

*JS Rest API, Web Sockets, React, Firebase Firestore*

*December 2024*

*Personal Project*

- Developed a Rest API using Express.js library to effectively communicate between frontend and backend of the Web Application.
- Incorporated Web sockets to enable fast and real time communication between users.
- Used Google Authentication technique to efficiently login users using Google tokens by my Firebase project.

### Doubtnet – App to share doubts and respond

*JS Rest API, React, MongoDB, expressJS*

*December 2023*

*Personal Project*

- Developed a Rest API using expressJS library to effectively communicate between frontend and backend of the Web Application.
- Created well-structured database schemas to store various types of information seamlessly.
- Used manual authentication techniques and encrypted passwords to ensure security of user data.

## Certifications

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### Advanced Learning Algorithms

June 2024

*DeepLearning.AI, Stanford University*

- Built and trained a neural network with TensorFlow to perform multi-class classification.
- Applied best practices for machine learning development so that models generalize to data and tasks in the real world.

### Supervised Machine Learning: Regression and Classification

May 2024

*DeepLearning.AI, Stanford University*

- Built machine learning models in Python using popular machine learning libraries NumPy and scikit-learn.
- Trained supervised machine learning models for prediction and binary classification tasks, including linear and logistic regression.

## Work Experience

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### Floor Clerk - Term Position

August 2025 - September 2025

*University of Manitoba Bookstore*

Winnipeg, MB

- Delivered knowledgeable and courteous customer service at the textbook information desk by assisting students with course materials, answering inquiries in-person and over the phone.
- Supported store operations by stocking and monitoring shelves, organizing merchandise, and ensuring a clean and accessible environment.

### Grocery Associate

September 2024 - April 2025

*Walmart Canada*

Winnipeg, MB

- Provided exceptional customer service by guiding customers to product locations and answering related queries.
- Verified stock count and monitored store aisles to ensure cleanliness and safety.

### Sales Advisor

April 2023 - July 2024

*Club Demonstration Services*

Winnipeg, MB

- Provided customer with food samples at Costco Wholesale to promote products and enhance shopping experience.
- Achieved the sales incentive target of 5,000 products three times, showing consistency in meeting sales goals.
- Communicated with customers to answer questions, clear doubts, and promote products, helping them make purchase decisions.

## Extracurricular Activities and Volunteering

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### Orientation Ambassador

January 2024

*University of Manitoba*

Winnipeg, MB

- Welcomed and guided new students during orientation, providing information about campus resources and student services.
- Engaged students in interactive activities such as personalized bingo and group discussions to create a fun and welcoming environment.

### Technical Member

April 2021 - June 2022

*Studomatrix – Students for Holistic Development*

Meerut, India

- Organized online art focused workshops and events for students across the country by co-operating and communicating with individuals across India.

### Badminton Team Captain

April 2019 - April 2021

*St. Mary's Academy*

Meerut, India

- Led the High School Badminton Team to the U-17 category semi-finals in district level competitions.