

Ishaan Ratanshi

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EDUCATION

University of Alberta

Bachelor of Science General: Computer Science

Edmonton, AB

September 2023 – May 2026

SKILLS & INTERESTS

Skills: HTML, CSS, JavaScript, C#, Python, React.js, Node.js, RESTful API, Data Science

Frameworks: Flask, Tk

Interests: AI & ML, Web Development, Databases, Data Structures and Algorithms, UI/UX, Full-Stack Development, App Development

EXPERIENCE

Code Ninjas

March 2024 - Present

- Facilitated the acquisition of knowledge for individual students by providing adept troubleshooting support and personalized assistance.
 - Evaluated student projects in programming languages including **JavaScript**, **C#**, and **C++**.
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COMPETITIONS

Upper Bound (Alberta Machine Intelligence Institute)

- Applied **Q-Learning** and **Proximal Policy Optimization (PPO)** techniques to address a complex challenge: guiding an entity to navigate and discover the shortest path to a target destination over a continuous state space. Leveraging an array of powerful libraries such as **Gym**, **Matplotlib**, **NumPy**, and **Stable Baselines3**, meticulously trained an agent to dynamically explore and exploit its surroundings.

Hack the Computer - Open the Box (Cybersecurity, Hacking, and Digital Security Club)

- Demonstrated expertise in exploiting vulnerabilities through **SQL injection** to bypass a website's login system, showcasing proficiency in **penetration testing** techniques. Additionally, adeptly tackled **Netcat** puzzles, showcasing problem-solving skills and an ability to navigate complex **cybersecurity** scenarios.
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TECHNICAL PROJECTS

Stocker

- Designed and implemented a stock market trend predictor leveraging machine learning techniques such as **XGBoost** and **Bayesian Neural Networks**, integrated with **sentiment analysis** and risk strategies. Developed user-friendly interfaces in **ReactJS** and **Swift** for seamless access to dynamic stock market predictions.
 - *Python, HTML, CSS, JavaScript, Swift, React.js, Node.js, Tensorflow, XGBoost*

Google Developer Student Club (Software Developer)

- SignSense:** SignSense utilizes **Agile** methodologies and **machine learning** to achieve precise classification of German traffic signs.
 - *Python, HTML, CSS, JavaScript, TensorFlow, NumPy, Pandas, Scikit-image*

Undergraduate Artificial Intelligence Society Club (Data Analyst)

- NLP+ML Project: Advanced Safety and Risk Management System for Asian Industry Web Application:** Implemented **K-Nearest Neighbors (KNN)** machine learning algorithm for missing data imputation with a **94%** accuracy. Conducted thorough analysis of safety reports, adeptly using diverse graphical representations to communicate correlations efficiently.
 - *Python, Scikit-learn, Pandas, Matplotlib*

Movie Database Web Application

- Built with **ReactJS** and **TMDB**, the movie database API, the Movie Database web application provides an intuitive and engaging **user interface** to deliver a seamless movie browsing experience.
 - *HTML, CSS, JavaScript, React.js*