Alankrit Verma

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EDUCATION

• University Of Toronto

September 2022 - June 2026

Honors Bachelor of Science, Specialization in Computer Science & Entrepreneurship (Co-op), Major in Statistics

Toronto, CA

- Awarded the \$400,000 Lester B. Pearson Scholarship as the sole recipient from 20,000+ applicants for academic and leadership excellence
- o Teaching Assistant for Intro to Computer Science, Programming, and Calculus, guiding 100+ students through concepts and tutorials
- Scored 90/100, ranked 53rd globally out of 20,000+ participants in the Euclid Math Contest, showcasing advanced problem-solving skills

PROGRAMMING SKILLS

Languages: Python, Java, C, C++, HTML, JavaScript, Typescript, SQL, Bash, Beginner (Rust, Go, Scala, PHP, C#, Ruby) Tech & Frameworks: ReactJS, Django, TensorFlow, MySQL, OpenCV, NodeJS, CLI, D3.js, WebGL, API, REST Tools: Git, Docker, Azure, CI/CD Pipelines, MongoDB, JIRA, Linux, Android Studio, PowerBI, Figma, Jupyter

Professional Experience

• ML Researcher & Software Developer | Computational Social Science Lab, UofT

October 2023 - Present

- Enhanced the <u>Maia Chess</u> platform (developed with <u>Microsoft</u>) by creating **machine learning models** that replicate diverse human chess strategies, enabling **personalized feedback** and significantly improving user learning experiences; with Ashton Anderson (Vector Institute)
- o Developing an interactive website to stream chess **AI models** playing against each other on Twitch, integrating **live analysis** and real-time learning between models, leading to increased **user engagement** within AI research and gaming communities
- AI Researcher & Consultant | CIGI, Waterloo

September 2024 - December, 2024

- Researched AGI advancements and global AI risks, identifying technical mitigation strategies to inform international policy
- $\circ \ \text{Developed reports and presentations for } \textbf{AI experts}, \ \text{contributing to international } \textbf{AI governance frameworks} \ \text{in global decision-making}$
- Researcher, Algorithmic Bias in Twitter | Rotman School of Management, Toronto

June 2023 - February 2024

- Led the analysis of 100,000+ tweets using Python, Pandas, NumPy, and Scikit-learn, uncovering significant patterns of bias and misinformation that shaped further research on algorithmic bias
- Automated the extraction and processing of **6,000+ Monkeypox articles** from various news outlets using **BeautifulSoup and Selenium**, enabling accurate real-time content analysis with *Professor Yizhou Jin* (Rotman Faculty)

Personal Projects

- DeezSquats: Hack the Valley Best AI Hack | Source Code + Demo | Pytorch, Streamlit, OpenCV, YOLO October 202
- Built an **AI-driven fitness app** with a Streamlit interface, enabling users to interact with a **LLaMA**-based (open source) chatbot hosted on Cloudflare for personalized workout plans tailored to individual fitness goals
- Developed dual feedback modes: video upload for comprehensive analysis and real-time feedback, utilizing YOLO (Computer vision)

 -based pose estimation and Computer Vision ML algorithms to deliver instant form corrections, enhancing exercise safety
- Expanded exercise library and optimized adaptive recommendations, enabling users to **track progress and refine techniques** based on AI-driven insights, boosting engagement and confidence
- NotParx | Source Code + Demo Video | ReactJS, Django, Docker, Azure, MongoDB, Scraping, Scrum

April 2024

- o Led the development of a comprehensive platform for <u>Parkprescriptions.ca</u>, enabling doctors to **register**, **verify**, **and issue prescriptions**; managed system architecture using **React for UI** and **Django for microservices**; oversaw **CI/CD pipelines** for seamless deployment as **Scrum Master**, practicing Agile methodologies, version control and proper documentation
- Developed real-time data scrapers integrating 10+ Canadian medical databases via Azure Functions, ensuring accurate and up-to-date prescription management
- Kaggle Competition DS3 Datathon Winner | Presentation | ML, Transformers, Pytorch

January 2024

- o Celestial-Labelling (Kaggle) Got 97.6% accuracy using a hybrid Decision Tree model(Random Forest and XGBoost)
- o Traffic Signs (Kaggle) Got 97.5% accuracy with optimized (CNNs) for traffic sign(Images) classification
- o Heart Disease (Kaggle) Secured 88.3% accuracy through an ensemble of multiple models for heart disease prediction

LEADERSHIP EXPERIENCE

• Founder & Co-Chair | Gen AI Genesis (Canada's Largest AI Hackathon), Toronto, CA

February 2023 - Present

- Founded and led Canada's largest AI hackathon with 3000+ applicants and 50+ organizers, garnering coverage from 140+ global media outlets and establishing a premier platform for AI innovation and collaboration
- Secured \$90,000+ in sponsorships from 16+ leading organizations including Google, United Nations, Vector Institute, AMD, PwC, and Cohere, forging lasting partnerships with industry and academia
- Co-President | Departmental Student Association for Computer Science & Math (AMACSS), UofT

June 2023 – Present

- Led with a growth mindset, the largest student association for 3,000+ students in Computer Science and Math, organizing 10+ events that engaged 250+ participants and fostering a vibrant technical community within the department
- Conducted weekly workshops on Data Structures and Algorithms (algorithm development), consistently attracting 40+ students
 per session, enhancing their technical skills and readiness for academic and industry challenges