

# Mahak Khurmi

3<sup>rd</sup> year Undergraduate Student . Email: [mahak.khurmi@mail.utoronto.ca](mailto:mahak.khurmi@mail.utoronto.ca)

LinkedIn: [mahak-khurmi999](#) Github: [mahak999](#)

## EDUCATION

**University of Toronto** (St. George)

Toronto, ON

*Hons. Bachelor of Science in Computer Science (cGPA: 3.94/4.0) [Dean's Honour Scholar]*

Sep 2019 – May 2023

Computer Science Specialist w/ Mathematics and Statistics Minor [Focus in AI and Computer Vision]

## SKILLS

- Technical knowledge:
  - (Proficient) Web Development: **React.js [including hooks], Node.js JSX | Python, Java, C | Databases**
  - Familiar) Django, C++, Pytorch, Tensorflow, Keras, R, Flutter, C#
- Proficient in Languages: English, Hindi, Punjabi

## WORK EXPERIENCE

**Research Assistant at MEDCVR Lab**

May 2021- Present

- Working on developing a machine learning model capable of performing automatic lesion boundary detection using dermoscopy images.
- Making use of the deep learning methods and snake algorithms.

**Instructor for LearnAI program in Africa**

Dec 2020- Present

- Taught machine learning concepts to **300+** students from the countries of Kenya, Ghana, Nigeria, Algeria, and Mexico under the LearnAI in Africa initiative in collaboration with organizations like AI Commons, McGill university, Runmila AI Institute and University of Toronto.
- Led a team of **40** people, working towards smooth execution of LearnAI program (an introductory ML educational program) in East and West Africa with an aim to encourage affordable 'AIforGood' employment

## PROJECTS

1. **Musical Style Transfer with CNNs** | *Tensorflow, CNN, Python* [Group Project]

- Made a model capable of transferring the style of a piece of music while preserving its content using **tensorflow's** Librosa library, CNNs and spectrograms. [Link to project](#). [Report of project](#)

2. **Software: Advanced Conference Management System** | *Java* [Group Project]

- Made an interactive software with a fully functional GUI following the **Clean Architecture** and **SOLID** principles. In this project we used several Design patterns including Factory, Façade and Serialization. [Link](#)

## AWARDS AND SCHOLARSHIPS

University of Toronto **International Scholarship**: India

Sep 2019 - Sep 2023

Awarded Dean's Honors Scholar

Aug 2020

University of Toronto **Scholars Award**

Sep 2019

Awarded by CBSE for being among **top 0.1% students in the country** in Mathematics

Dec 2018

**Bronze Medalist** in Central Board Secondary Education Science Exams

May 2018

Awarded by **University of Waterloo**, Canada for being **among top 25% in Euclid Competition**

Apr 2019

Best Player Award by Rajasthan's State Sports Department (Women's category)

Sep 2017

## LEADERSHIP EXPERIENCE

**General Executive** University of Toronto Artificial Intelligence Group (UofT AI)

Sep 2020- Present

- Led a team of **20** students responsible for UofT AI's marketing and promotion operations for the annual StartAI conference with **almost 2,000** participants.
- Contributed to the organization of an international machine learning competition with over **100** students from teams from the **top 25 universities** in North America (Stanford, MIT, Carnegie Mellon, UC Berkeley, etc.) with a budget of **\$100,000** and partnerships with Google AI, IBM, DeepMind, AccuWeather, Vector Institute, etc.

**Project Developer** at UofT Machine Intelligence Student Team

Sep 2020- Mar 2021

- Undertaken the planning and execution of the project aimed to implement a machine learning model in Tensorflow capable of transferring the style of music of a piece of audio in a group of **6** students.

**Peer (Student) Leader** at New1X and IGNITE program at New College, UofT

Aug 2020 - Present

**University of Toronto Varsity Tennis Team Member**

Sep 2019 - Present

## VOLUNTEER EXPERIENCE

**Student Leader** at Computer Science Frosh at Computer Science Student Union

Aug 2020 - Present