

Utsav Shinghal

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Driven computer science student interested in Data Science, Quantitative Finance and Software Development

EDUCATION

University of Toronto

Bachelor of Science in Computer Science and Mathematics (3.93/4.00)

Sept. 2019 – May 2023

- **1/25** students selected for the **Technology Leadership Initiative**, a program that offers industry integrated learning and leadership training for high-achieving computer science students.

SKILLS AND INTERESTS

Programming Languages: Python, C, Bash, Shell, Java, JavaScript, Swift, HTML, CSS, R, LaTeX

Libraries & Tools: Django, Flask, GraphQL, ReactJS, Git, Jira, Jupyter, Numpy/Pandas, Slurm, Streamlit

Languages: English (fluent), Hindi (fluent), Spanish (intermediate), Chinese (novice)

Interests: Chess, Poker, Scuba Diving, Guitar, Soccer/Tennis, Formula 1

WORK EXPERIENCE

Squarepoint Capital

Quantitative Developer Intern

May 2021 – August 2021

- Improved back-end memory efficiency by 40% by compressing datatypes in **Pandas**' dataframes and splitting up **Slurm** jobs allowing over 20 researchers to use larger datasets for analysis.
- Made key enhancements to quantitative tools (alpha capture, data analysis etc) created for researchers using **Streamlit** improving accessibility, efficiency and reliability.

Shopmatic

Software Engineer Intern

August 2020 – October 2020

- Increased customer checkout efficiency by **15%** by integrating their checkout form with the Google Maps API *react-geosuggest* for auto-filling shipping address / location.
- Expanded capabilities in the front-end making their interface more user-friendly using **React** and **Redux**.

University of Toronto

Course Developer

September 2020 – March 2021

- Developed tests, worksheets and programming assignments for two new Computer Science courses offered at UofT under professors David Liu and Mario Badr.
- Designed challenging questions in **Python** with solutions for testing key concepts such as Number Theory, Runtime Analysis, Object Oriented Design, Recursion, Data Structures.

PROJECTS

Teacher's Portal | *Python, Django, React, MongoDB, API's, GraphQL*

View on GitHub →

- Developed a **full-stack** web application using Django serving a GraphQL API with React as the frontend.
- Created this project in a team of 5 for the company **Hypatia** using their Check-Math API.
- Created models and schema in the back end, as well as statistics gathering functions from the API.
- Displayed informative statistics in the front-end using the React library Victory.

TickerTrakr | *Python, Flask, HTML, CSS, JavaScript, API's*

View on GitHub →

- **Winner** for '**Best Data Visualization**' at **Hacklytics**, Georgia Tech's Data Science Hackathon.
- Developed a full-stack application within 36 hours that uses the **Twitter-API**, **Reddit-API** and **Finnhub-API** to see how many times stock tickers are being mentioned on social media platforms, allowing users to make informed investing decisions.

Tennis Analysis [Research] | *Python, Selenium, Statistics, Mathematics*

View on GitHub →

- *To what extent does the deuce scoring system in tennis benefit the better player, and by how much? (5701 words)*

LEADERSHIP

Director of Internal Affairs | *Computer Science Student Union*

September 2020 – Present

- Elected Director of Internal Affairs by students in Computer Science at UofT.
- Planned a unique and innovative freshman student orientation during COVID19 for **200** first-year students.
- Co-leading a **6 million dollar** advocacy initiative for equitable tuition fees for CS students at UofT

First Year Representative | *Computer Science Student Union*

August 2019 – June 2020

- Responsible for representing the concerns of the first year class to the CS Department, and planning academic, social and professional events.
- Organised and ran a first-year study session for **50** students before final exams.