# Taha Ali

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 SyedTahaA | 🔲 Taha Ali | 📍 Canadian Citizen

## EDUCATION

**University of Toronto**                                                             Aug. 2019 – May. 2023

*Honours Bachelor of Computer Science (BSc) | Minor in Math | 3rd Year*

- **CGPA**: 3.5 on 4.0 scale, **Average**: 85%
- **Coursework:** Software Tools and Systems Programming, Data Structures and Analysis, Introduction to the Theory of Computation, Software Design, Software Methodologies, and Computer Organization
- **Course projects:** File Compression/Decompression via Huffman Coding in Python, Simulated File System in C, Transit System in Java by applying OOP and Design Patterns, Doodle Jump Game in Assembly
  **Awards**
  - * University of Toronto Scholar's Scholarship - $7,500
  - * University of Toronto Entrance Awards - $3,000

## SKILLS

**Languages** : Python, Java, C, MIPS Assembly, Racket, Haskell, HTML, CSS, JavaScript
**Developer Tools** : Git, Visual Studio, Eclipse IDE, VM VirtualBox, MARS MIPS Assembler, Jupyter Notebook
**Frameworks and Libraries** : Unittest, Pandas, NumPy, Matplotlib, Flask, Bootstrap, Scrum

## DEVELOPMENT EXPERIENCE

### Pathfinding on Map Visualizer

- Implemented a web app that maps paths using a variety of different pathfinding algorithms on GPS-like map
- Allows users to visualize path finding process and compare results of the different algorithms
- Algorithms include Dijkstra, A* Search, Breadth-first Search, Depth-first Search, etc.
- Web app interface designed using Python libraries like Ipyleaflet and Ipywidget
- Deployed as a web app on Heroku using Voila and Jupyter Notebook
- Uses OSMnx to get geospatial map data from OpenStreetMap

### Sports Data Visualizations

- Designed visualizations on sports statistics to analyze and compare players and teams
- Pandas, and requests to scrape, collect, and organize data
- Plotly/BCR and online tools used to create visualizations with further editing on Camtasia Video Editor
- Shared and monetized visualizations on social media; accumulated over **2.5+ Million Views** on YouTube ; accumulated over **5+ million impressions** on Twitter
- Videos showcased on; SportsBible and Sporf
- Developed web app with a co-contributor to allow fans to create similar visualizations
- Highlights: EPL Goals Comparison at the same age, Liverpool Season Review, NBA Points per Game Comparison

## EXTRACURRICULAR

**Clarkson Community Centre**
*Volunteer*

- Worked with a group of student volunteers to plan events in the community for the youth
- Organized events that had 100+ attendees

**Canadian Ultrasound Institute and Research Centre**
*Volunteer*

- Trained seniors how to use Word and Excel