

# VAMSI GAJJELA

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## EDUCATION

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### University of Toronto

Sept. 2019 - Current

Honours Bachelor of Science Computer Science

Relevant Courses: Software Design, Software Tools and Systems Programming, Data Structures and Analysis, Computer Organization, Algorithm Design and Analysis, Operating Systems, Probability and Statistics

## SKILLS

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**LANGUAGES:** Python, Java, C, SQL, HTML, CSS

**TECHNOLOGIES:** Django, PyTorch, Git

## EXPERIENCE

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### University of Toronto, Math Circles TA

Sept. 2021 - Current

- Developing workshops to introduce university level math and computer science topics to high school students
- Conducting sessions on the importance of math in computer science for 27 students
- Assisting other TAs and the professor with individual sessions

## PROJECTS

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### Transit System Program

- Wrote a Java program that allows users to manipulate and simulate the traffic system of cities through a GUI
- Led a team of four and adhered to scrum methodology to ensure project success

### Sentiment Analysis

- Used a linear support vector machine (SVM) to analyze positive and negative sentiment in a body of text
- Scraped and trained on review data from websites such as Amazon and IMDb

### File Compression/Decompression

- Utilized Huffman trees to perform lossless compression and decompression of files by mapping symbols to codes according to their frequencies
- Decompression can be done traversing the corresponding path on the tree
- Works on a variety of file types including .txt, .mp3, .wav, .jpg, and .bmp files

### URL shortener

- Designed and created a URL shortener using Django, SQLite, HTML, and CSS
- Built a simple user interface and served users by deploying the application onto Heroku

### Mario Kart Remastered

- Worked effectively in a three-person team to design and build a video game similar to Mario Kart
- Utilized the PyGame module to handle user input and render artwork onto the screen
- Implemented local multiplayer and a high score tracker as well as enemy players

## HOBBIES

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Karate, Swimming, Soccer, Hiking, Gardening