Anthony Tedja

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EDUCATION

University of Toronto Mississauga, ON | Sep 2019 - Expected Apr 2023
HBSc. with Computer Science Specialization and Mathematical Sciences Minor

- CGPA 3.63 / 4.0 as of Feb 2022.
- Named a **Deans List Scholar** and received the Mathematical and Computational Sciences Honour Roll Award as of the 2021 Academic Year.
- Designated as a **University of Toronto Scholar** with Scholarship.
- Awarded a **University of Toronto Mississauga Entrance Scholarship Award of Distinction**.
- Achieved a **Learning Excellence Award** in Computer Organization (CSC258).

WORK EXPERIENCE

KUMON | Math and Reading Teaching Assistant Brampton, ON | Sep 2015 – Jun 2019

- Led a team of marking TAs to grade **hundreds of student worksheets and tests daily**.
- Analyzed individual student progression through worksheets in an **active learning environment**, reinforcing learning material up to a **grade 12 level**.
- Graded with a consistent grading efficiency rating of **50 percent above standard**.
- Awarded Employee of the Month and Fastest Grader of the Month **over 10 times**.

PROJECTS

NOTION WIDGETS JavaScript, HTML/CSS, Persistent Storage
Responsive embeds optimized for Notion. Widgets include a pomodoro timer, live weather, a sleepy cat, and many more.

- Employed JavaScript local storage to preserve settings such as light and dark modes, which has led to an increase in usage by **over 400 percent**.
- Implemented custom widget templates to maximize **scalability and consistency**.

SUDOKU VARIANT AI SOLVER Artificial Intelligence, CSP, Python, Itertools
Python based Sodoku Variant (with variable cages) AI solver for 3x3 to 9x9 grids.

- Integrated Forward Checking and Generalized Arc Consistence constraint propagators with MRV heuristic to minimize search tree runtime by **over 10000 times** compared to Backtracking Search.
- Encoded efficient CSP models to **exponentially outperform** solution runtimes, variable assignments and prune value ratios.

MIPS ASSEMBLY DECOMPILER Python, MIPS Assembly, Script, Discord Bot
Python based binary 32-bit assembly instruction decompiler.

- Aided in open book exam for Computer Organization Course, resulting in a **Learning Excellence Award**.
- Discord Bot functionality integrates within discord bot development and environment.

ZIP FILE COMPRESSOR OOP, Python, Huffman Encoding, Binary Trees
Lossless file compression and decompression utilizing Huffman trees.

- Averaged a **1.5:1 compression ratio** when compressing files with the Huffman encoded algorithm.

SKILLS

Languages: Java, C, Python, HTML/CSS, JavaScipt, SQL, Haskell, Racket, MIPS Assembly
Tools: Git, Linux, Bash, PostgreSQL, Django, Bootstrap, NumPy, Arduino, LaTeX
Skills: OOP, Agile Methodologies, Dynamic Programming, Functional Programming

INTERESTS

Task Automation
Machine Learning & AI
Volleyball & Ultimate Frisbee