

# Alex Szokolay

Toronto, Ontario

alexszokolay02@gmail.com

(647) - 233 - 2292

[alexszokolay.com/](https://alexszokolay.com/)

Computer and Cognitive Science major at the University of Toronto. As a team player with supervisory experience who can also excel with independent work, I am interested in expanding my skill set and applying knowledge and experience from my program to solve real-world problems in the workforce.

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## Top Skills

- 4+ years of experience with Programming Languages, including Python and Java, familiarity with C. Web Development including HTML, CSS, Spring, Postgres and React. Experience using version control, including GitHub and Git
  - Software Development and Design
  - Problem-Solving, Communication, Group Collaboration, Customer Service, Multitasking
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## Education

### University of Toronto - Bachelor of Science

September 2020 - April 2024

Computer Science, Cognitive Science: Computational Cognition and Psychology

**Relevant Coursework:** CSC148, CSC207, CSC236, CSC263, CSC384

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## Projects

### HMM Part-of-Speech Tagger (Python, Viterbi Algorithm)

- Implemented HMM model with the Viterbi algorithm to calculate word tag probabilities using initial, transition, and observation probabilities from training data.
- Optimized tagging accuracy by 15% for unseen words and achieved 90% overall accuracy.

### Checkers Alpha-Beta Search (Python, Alpha-Beta Search)

- Developed state-based Checkers game and implemented Alpha-Beta pruning to solve endgame puzzles.
- Improved program efficiency by 25% using Node-Ordering and State Caching techniques.

### Hua-Rong-Dao Search (Python, Depth-First Search, A\* Search)

- Created a state-based Hua Rong Dao puzzle solver using DFS and A\* algorithms to find valid and optimal paths to solution states.
- Achieved 100% accuracy on A\* algorithm implementation.

### Travel Therapy (UofT Hacks, Discord Bot, Python)

- Built a Discord bot using Discord Python API, recommending places in the city based on user's mental state.
- Integrated Co:Here, a natural language processing platform, to query optimal locations according to user preferences.

### Newt-App (Java, PostgreSQL, JavaScript, React, CSS, HTML)

- Developed a social media platform with limited-size conversations and user-made discussion boards.
- Implemented an object-oriented backend in Java, integrated with a PostgreSQL database, and developed a front-end using React, CSS, and HTML.

# Work History

## **Ice N' Cake, Toronto** — *Shift Supervisor*

March 2021 - Present

- Managed daily operations, requiring effective problem-solving skills to address various challenges and ensuring smooth functioning of the store.
- Trained and mentored new staff members on company policies, procedures, and best practices, demonstrating strong communication and leadership abilities.
- Contributed to a positive and cohesive work environment, showcasing teamwork and collaboration skills.
- Served as a keyholder and performed cash management duties, highlighting attention to detail and responsibility.

## **Subway, Toronto** — *Sandwich Artist*

September 2020 - August 2021

- Prepared customized sandwiches and salads, requiring efficient multitasking and time management skills to ensure high customer satisfaction and timely service.
- Assisted in maintaining store cleanliness and adhering to food safety standards, emphasizing attention to detail and a commitment to quality.
- Collaborated with team members to handle cash management responsibilities and maintain a well-organized work environment.

## **J-Dolphins Swim School, Toronto** — *Swim Instructor*

September 2016 - March 2020

- Designed and delivered tailored swimming lessons, showcasing problem-solving and adaptability in creating custom lesson plans for students of various ages and skill levels.
- Developed strong communication skills by providing constructive feedback to students and their parents, fostering positive relationships and open communication.

## **Bayview Glen Day Camp, Toronto** — *Camp Counselor*

June 2016 - August 2016

- Supervised and engaged with campers, emphasizing the importance of creating a safe and fun environment while participating in various camp activities.
- Collaborated with fellow counsellors in planning and executing daily activities, demonstrating teamwork and the ability to work towards a common goal.
- Served as a bus counsellor, showcasing responsibility and strong communication skills while ensuring camper safety and well-being during transportation to and from camp.