

# Jinho Yoon

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3600 Parc Avenue, Montréal QC, H2X 3R2

## Education

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**McGill University** | Honours Math and Computer Science

**Sept 2021 - May 2024**

- **CGPA:** 4.0/4.0; **Relevant Classes:** Algorithms & Data Structures, Math for Machine Learning, Discrete Mathematics

## Professional Experience

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**Research Intern** | DDMAL Lab, McGill University

**May 2022 - Present**

- Developing optical music recognition software in **TypeScript, C++, Python**
- Reduced memory consumption by 90% by fixing severe memory leak
- Improved startup time by ~2 seconds and sped up average response time by 100% with a selective re-rendering algorithm

**IT Assistant** | Lydon Lab, McGill University

**Feb 2022 - Present**

- Migrated laboratory data of 1.3 million files using automation scripts in **Python**
- Developed interactive widgets for psychology studies of 500+ participants in **JavaScript**

**Software Developer Intern** | TECO Education, Seoul

**May 2021 - Mar 2022**

- Created the company's online administration platform with **Typescript, React, GraphQL**
- Developed a React Native mobile application for the company's upcoming beginner Korean program

## Projects

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**Automated Theorem Prover** (*Functional Programming, Logic*)

**May 2022 - Present**

- Developing an automated theorem prover for propositional logic in **OCaml** and **TypeScript**
- Implemented sequent calculus to generate proof trees of theorems
- Created an algorithm to convert sequent calculus trees into natural deduction proofs
- GitHub: <https://github.com/jinh0/gentzen>

**Sign Language Recognition** (*Machine Learning*)

**Oct 2021**

- Created real-time video transcription software of ASL signs in **Python** with MediaPipe
- Trained a random forest classifier of 95% accuracy on 20,000+ inputs with scikit-learn
- GitHub: [https://github.com/RoseDuf/MAIS\\_Hacks\\_2021](https://github.com/RoseDuf/MAIS_Hacks_2021)

## Additional Information

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- **Programming languages/libraries:** Python, TypeScript, OCaml, C++, React, numpy
- **Interests:** philosophy of language, 20th century psychoanalysis, functional programming