

# Kevin Shi

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## EDUCATION

**UNIVERSITY OF TORONTO** | Graduated June 2020 | Toronto, ON

Honours Bachelor of Science in Computer Science, Minor in Mathematics

- Graduated with Distinction
- Coursework covered Algorithms, Computer Networks, Computer Vision, Machine Learning, Operating Systems, and Relational Database Design

## EXPERIENCE

**HARVEST MEASUREMENT** | Full Stack Developer

May 2018 – August 2018 | Hamilton, ON

- Responsible for end-to-end development of an application which tracks the buildup of dangerous gases and notifies users when buildup reaches critical levels
- Refurbished old JavaScript, HTML, and CSS front-end with modern Typescript and React
- Reorganized SQL tables and edited queries to improve response time by 12%
- Wrote scripts to automate data collection and storage, saving up to 6 hours per week

May 2017 – August 2017 | Hamilton, ON

- Developed a user-friendly web interface for an indoor heat monitoring system
- Utilized data serialization to improve data transfer speed and reduce server storage space
- Created a unique and efficient search algorithms to improve site response time by 53%
- Practiced the waterfall model to manage development over a period of 4 months

## PROJECTS

**CHESS HELPER** | [kevinshi97/chesshelper](https://github.com/kevinshi97/chesshelper)

- Developed a python application which takes an image of a chess board and tells the user the best move
- Incorporated edge detection and feature extraction techniques to locate the position of the board
- Used PyTorch to build a CNN classifier to identify pieces and return valid board states with an error of 1%
- Demonstrated techniques which improve the accuracy of a CNN when sample size is limited (80 images)

**RE-LEC** | [kevinshi97/re-lec](https://github.com/kevinshi97/re-lec)

- Collaborated with 6 other students to develop a React application for students to share lecture recordings
- Followed agile development model to meet deadlines over a period of 4 months
- Led development of node.js and express.js back-end with a MongoDB database

## SKILLS

- **Programming Languages:** Python, Java, C/C++, Bash, Haskell, Julia, MATLAB, SQL
- **Web Languages/Frameworks:** JavaScript, TypeScript, HTML, CSS, Node.js, React, Meteor, Flask
- **Other Libraries/Frameworks:** Numpy, Matplotlib, OpenCV, Pytorch, TensorFlow
- **Other:** Linux Systems,  $\text{\LaTeX}$ , Microsoft Office Suite, Photoshop