

# Pranshu Patel

UNIVERSITY OF TORONTO || 3RD YEAR COMPUTER SCIENCE

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## Education

### University of Toronto

PURSuing B.S. IN COMPUTER SCIENCE (MINOR IN MATHEMATICS AND STATISTICS)

Class of 2023

- Dean's List Scholar 2018
- *Relevant Coursework:* Algorithms and Complexity, Operating Systems, Software Design, Intro to Information Security, Theory of Computation, Probability and Statistics, Data Structures and Analysis

## Projects

### Bulk File Manager

SOLO

April 2020

- Developed a bulk file management system written in **Java**, utilizing **JavaFX** to allow users to conveniently perform useful actions on a large group of selected files such as renaming, relocating, merging, etc
- Implemented a smart renaming system that renamed multiple files at once based on user preferences
- Utilized **MVC structure** and **observer design pattern** in order to maintain concise and reusable code

### ColourBlock

DESIGN TEAM

December 2019

- Worked with a team of 5 to develop a cloned version of the popular computer game Tetris using **PyGame**
- Created a **work breakdown structure** in order to plan out required tasks and corresponding deadlines
- Presented a **design review plan** to an audience, highlighting important design decisions chosen by the team

### Reversi

GROUP

October 2019

- Worked with a team of 4 to create a GUI application of the board game "Reversi" written in **Java**
- Developed and utilized **greedy algorithms** to implement an AI bot for increased level of difficulty
- Used **design patterns** such as Factory, Visitor, and Observer in order to make group collaboration easier and more effective
- Practiced **scrum** and **agile development methodology** with team of 4
- Utilized **git** for version control

### Phone Map

SOLO

March 2019

- Developed a **Python** application that displayed a filter-based map of calls made in the Greater Toronto Region
- Parsed through a **JSON** file in order to retrieve information from over 500 different calls such as timestamps, length of calls, bills, etc
- Effectively used **object oriented programming** to ensure code conciseness and re-usability

## Work Experience

### Mathnasium

Milton, ON

MATH INSTRUCTOR

June 2019 - September 2020

- Worked with a group of instructors to develop important mathematical skills for children aged 8-17 through focus on fundamental concepts
- Designed **individualized learning plans** to target the student's specific areas of weaknesses
- **Hosted meetings** with parents to discuss their student's progress and future plans

### Pakmen Volleyball Club

Mississauga, ON

LEAD COACH

October 2016 - April 2020

- Coached weekend volleyball house leagues consisting of children of various ages and skill levels
- **Led a team of 3-4 coaches** to ensure player development and enjoyment.
- Ran weekly summer camps for children of ages 6-13

## Technical Skills

### Programming Languages

Python, Java, C, Bash, TeX

### Tools and Technologies

Eclipse, PyCharm, PyGame, VSCode, JavaFX, Git, Logism, LaTeX