

EDUCATION



University of Toronto, Toronto, ON – *Bachelor of Science in Computer Science*

2015 – 2019
(3rd year student)

Relevant Coursework: Machine Learning, Data Structure, Algorithm Design and Analysis Introduction to AI, Software Design, Theory of computation, Computer Organization, Software Tools and Systems Programming, Databases, Operating Systems, Web Programming.

WORK EXPERIENCE



Game Developer and User Tester – Centivizer (Toronto, Canada)

May 2018 –
Current

- Car simulation game from scratch that focuses on elders who mainly have dementia or Alzheimer's disease to improve their symptoms
- Using BabylonJS as the game engine and Blender for 3D modeling plus three other modules such as the wheel, joystick and the pedal provided by the supervisors.
- Implemented wall detection system that puts the car back on the track
- Volunteered for the Centivizer Hackathon and helped the winning team with adding features to the Car Simulation game.
- Tested in Toronto Rehabilitation Institute

PROJECTS

A.I. in Pac-Man (Python) – AI Pac-man tries to win the game on its own.

- Applied an array of AI techniques to playing Pac-Man such as informed state-space search, game tree search, probabilistic inference.
- i.e. used A* w/ heuristics, IDS, DFS, BFS, UCS algorithms and analyzed the runtime.

Jan 2018 –
Apr 2018

Automated KenKen Puzzle Solving (Python) – An AI that Solves KenKen puzzles.

- Applied CSP (Constraint Satisfaction Problems) and used different AI techniques such as backtracking search.
- Used the two main types of propagation such as Forward Checking & GAC (Generalized Arc Consistency).
- Applied different heuristics such as Minimum Remaining Values heuristic, Degree heuristic & Least Constraining Value heuristic to optimize the search further.

Jan 2018 –
Apr 2018

File Synchronization (C) – A program that provides a file synchronization system for that works across different machines.

- transfers files across network sockets.
- Xor hash function was used for finding a mismatch in a file.
- Multiple processors were used to speed up the process of transferring a huge directory with many files.

Apr 2017

Distance Calculator (Java) – an android app which calculates the distance of an object to the user.

- The distance is calculated by using the angle of the phone to the ground and the given height of the person (phone's accelerometer). It is tested on Android SDK 25.
- Camera2 API was used to access the camera tools.
- Currently working on image recognition by using TensorFlow.

Dec 2016 –
Current

TECHNICAL SKILLS

AWARDS

LANGUAGES

Python, Java, C/C++, C#, HTML, CSS, JavaScript, PHP, Ruby, Git, Android and iOS app development, SQL, SVN, Bootstrap, Selenium, Lua, XML, JSON Haskell, Racket

Mentor for Introduction to Computer Science, chosen by Prof. Chinaei due to my high achievements (2016)

English & Farsi