



# Anshil Gandhi



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## Skills

### Programming Languages

C/C++, Python, JavaScript, Java,  
Bash, Kotlin, Rust

### Development Tools

Vim, Visual Studio Code, Git, gdb,  
valgrind

### Languages

English, Hindi, Gujarati

## Strengths

Creative  
Quick Learner  
Hardworking  
Punctual  
Resourceful

## Coding

### Open Kattis

- Worldwide rank 190
- Solved 344 problems

### HackerRank

- 6-star Gold Badge in problem solving, using C++ and Python
- 5-star Gold badge in C++
- Solved 104 problems

### Project Euler

- Solved 11 problems

## Education

2017 Sept - BSc. in Computing Science and Math | Year 3

University of Alberta

### Coursework

- Algorithms and data structures, Operating Systems, Computer Systems and Architecture, Quantum Computing, GPU Programming, theory of computation, Reinforcement learning
- Graph theory, Ring theory, Group theory, Representation theory, Multivariable Calculus, Statistics

### Extracurricular Activities

- Problem-solving and programming club
- Software team in AlbertaSat

## Work Experience

June 2019 - Software Developer - NexOptic Technology | Edmonton

3 months

### Responsibilities

- Develop software to assist development of Artificial Intelligence technologies for Computer Vision.

July 2016 - Student Intern - University of Alberta | Edmonton

1 month

### Responsibilities

- Developed and improved the frontend and the backend scripts for a Reinforcement Learning interface.

## Research and Projects

1. unixFS is a UNIX-based file system implementation, written in C++, which supports features including disk mounting, file/directory creation and deletion, file I/O operations, file resize and disk defragmentation.
2. mapReduce library is a programming model and a distributed computing paradigm for large-scale data processing, written in C++. It allows for applications to run tasks in parallel, making them scalable and fault-tolerant.
3. lianshell is a standalone procedurally designed UNIX-based shell program, written in C++, which supports process management and interprocess communication via piping and signal transmission.
4. dragon is a single-header library of game playing algorithms integrable with any game written in the expected format. Currently, the project includes Nex, Hex, Reversi and Tic-tac-toe. This project is written in C++.
5. Q3T is an implementation of the game of Quantum Tic-Tac-Toe, written in Python 3.

## Achievements

- Participated in the Alberta Collegiate Programming Contest 2019, ranked 9th out of 41 official teams.
- Qualified for Communtech's Code to Win Final Round, ranking in the top 75 in the preliminary round.
- Ranked 3rd out of 75 teams in the Rocky Mountain Regional Contest 2019.
- Ranked 3rd in the University of Alberta Programming Contest division 1.
- Participated in the Google Kickstart Round B 2019, ranking 633 out of 2250 participants.

## References

*References are available upon request.*