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, UNIX environment

Languages

- English, Hindi, Gujarati

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

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 Communitech'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.

Work Experience

June 2019 — Software Developer — NexOptic Technology
- Developed software to assist development of Artificial Intelligence technologies for Computer Vision.
- Parallelized software for improved human-computer interaction.
- Analyzed resource usage and developed methods to increase processor utility.
- Worked with a team to improve software capabilities for corporate clients.

July 2016 — Student Intern — University of Alberta
- Developed and improved the frontend and the backend scripts for a Reinforcement Learning interface.
- Implemented Reinforcement Learning environments.

Education

Sept 2017 — 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 member in AlbertaSat:
  - implemented MPPT algorithms for the ExAlta 2 satellite.

References are available upon request.