Anshil Gandhi

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Education

Edmonton, AB **University of Alberta** **Fall 2017 - contd.**

B.Sc. in Computing Science and Mathematics
Relevant coursework Operating Systems; GPU programming; Theory of computation; Computer organization and architecture; Algorithms and data structures; Reinforcement learning; Functional and logic programming; Multivariable calculus; Graph theory; Coding theory; Statistics.

Extracurricular activities
- Regular attendant of the problem solving and programming club
- Software team member in AlbertaSat

Employment

Software Developer **NexOptic Technology** **June 2019 - August 2019**
- Developed a GUI to process images with dcraw and reduce impulse noise with ALLIS™ on the Jetson Nano microcontroller with the help of POSIX threads, Spinnaker SDK, nuklear and openGL libraries.
- Customized GUI to handle real time video processing with ALLIS™, added a slider for comparing ALLIS's noise reduction performance.
- Optimized ALLIS™ to process 720p video and improve frame rate by 50%.
- Implemented image file converters for PNG, TIFF and DNG.
- Refactored the dcraw C program to perform static linking with ALLIS™.

Student Intern **University of Alberta** **July 2016 - August 2016**
- Refactored a Java reinforcement learning interface.
- Implemented reinforcement learning environments, including mountain car and theT game of 2048.

Projects

unixFS UNIX-based file system implementation, written in C++11, which supports features including disk mounting, file/directory creation and deletion, file I/O operations,file resize and disk defragmentation.
mapReduce library a multithreaded application for computing word count, written in C++ using POSIX threads
Q3T an implementation of the game of Quantum Tic-Tac-Toe, written in Python 3.
EulerTikz implementation of force-based layout graph drawing algorithms, written in Python 3.

Additional Experience and Awards

Open Kattis ranked 182 out of 5000
HackerRank 6-star gold badge in Algorithms and data structures.
Bronze medal in RMRC 2019 ranked third place in the ACM's Rocky Mountain Regional Contest out of 75 teams.

Skills and Technologies

Programming languages C++11/14/17; C; Python; JavaScript; Java; Lisp; C#.NET; Bash; Kotlin; Rust.
Frameworks LLVM Clang; openGL; openCV; CUDA; Numpy; Matplotlib; OpenMP; MySQL.