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| #331-344 Windermere Road NW  Edmonton AB Canada T6W2P2 | **Anshil Gandhi** | | | (780) 700-47262  gandhi21299@gmail.com  [gandhi56.github.io](http://gandhi56.github.io) |
| **Employment** | | | | |
| **Software Developer** | **NexOptic Technology** | | | **Summer** 2019 |
| ALLIS   * Developed a parallel GUI using the Spinnaker SDK, nuklear and openGL libraries integrating ALLIS to perform image processing and noise reduction from a Point Grey camera on NVIDIA’s Jetson Nano microcontroller. * 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 at 15 FPS by reducing overhead. * Implemented image file converters for PNG, TIFF and DNG. * Refactored the dcraw C program to perform static linking with ALLIS. * Experienced developing software in C++ in a UNIX environment over CPU and GPU, along with 4 other developers. | | | | |
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| **Student Intern** | | University of Alberta | **Summer 2016** | |
| Reinforcement learning interface   * Implemented environments for testing RL agents in Python and Java. | | | | |
| **Education** | | | | |
| **Edmonton, AB** | **University of Alberta** | | | **Fall 2017 - contd.** |
| B.Sc. in Computing Science and Mathematics | Year 3   * **Undergraduate Coursework** Operating Systems; GPU programming; Theory of computation; Computer Organization and Architecture; Data Structures; Algorithms; Reinforcement learning; Functional and logic programming; Multivariable Calculus; Graph theory; Coding theory; Ring theory; Group theory; Representation theory; Statistics. * **Extracurricular Activities**   + Problem solving and programming club | | | | |
| **Technical Experience** | | | | |
| **Projects** | | | | |
| * **unixFS** 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. * **mapReduce library** a programming model and a distributed computing paradigm for large-scale data processing, written in C++. * **lianshell** a standalone procedurally designed UNIX-based shell program, written in C++, which supports process management and interprocess communication via piping and signal transmission. * **Q3T** an implementation of the game of Quantum Tic-Tac-Toe, written in Python 3. | | | | |
| **Awards** | | | | |
| * **Open Kattis Coding platform** Ranked 182 across the world, solved 365 problems. * **HackerRank Coding platform** earned a 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, sponsored by JetBrains and twoSigma. | | | | |
| **Languages and Technologies** | | | | |
| * **Programming Languages** C++11/14/17; C; Python; JavaScript; Java; Lisp; C#.NET; Bash; Kotlin; Rust. * **Editors and IDEs** VIM; Visual Studio Code; Visual Studio; Android Studio. * **Knowledge of compiler framework** LLVM Clang. * **C++ libraries** openGL; openCV; CUDA | | | | |