Anshil Gandhi

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Education

Edmonton, AB **University of Alberta** **Sept 2017 - Contd.**
B.Sc. in Computing Science and Mathematics
Relevant coursework Compiler Design; Database Management; Operating Systems; Graph theory; GPU programming; Theory of computation; Computer organization and architecture; Algorithms and data structures; Reinforcement learning; Functional and logic programming; Multivariable calculus; Coding theory; Statistics.

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

Employment

Software Engineer **LLVM Foundation** **Aug 2020 - Contd.**

- Fixing bugs in the clang compiler and libc.

Team Lead **Canadian Organization of Undergraduate Health Research** **June 2020 - Contd.**

- Leading a team to develop an Android application to collect patients' routine and present it in an organized manner for the researchers to analyze.

Software Developer **NexOptic Technology** **April 2020 - Aug 2020**

- Implemented a Tensorflow based ISP.
- Implemented features for ALIIS™ on the Android platform in Kotlin.
- Implemented a CMake build system for ALIIS™.

Software Developer **NexOptic Technology** **June 2019 - Aug 2019**

- Developed a GUI to process images with dcraw and reduce impulse noise with ALIIS™ on the Jetson Nano microcontroller with the help of Spinnaker SDK, nuklear and openGL libraries.
- Customized GUI to handle real time video processing with ALIIS™.
- Optimized ALIIS™ 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 ALIIS™.

Student Intern **University of Alberta** **July 2016 - Aug 2016**

- Refactored a Java reinforcement learning interface.
- Implemented reinforcement learning environments, including mountain car and the game of 2048.

PROJECTS

ammoc is an LLVM-based compiler for a Rust-like programming language, written in C++.
Lianshell is a standalone procedurally designed UNIX-based shell program supporting process management and interprocess communication.
EulerTikz is an implementation of a force-based layout graph drawing algorithm, written in Python 3.
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 is a multithreaded application for computing word count, written in C++.
RubberDuck is a personalized competitive programming training application for the Android platform using the codeforces API.

AWARDS

Open Kattis ranked 191 out of 5000 across the world
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

PROGRAMMING LANGUAGES

Proficient C/C++; Kotlin; Python
Competent Rust; Java; Lisp; Prolog; Bash

References will be available upon request