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| **Vikram** Singh |
| **Buffalo, NY** | (###) ###-#### | **vikzilla18@gmail.com** | [Linkedin.com/in](http://linkedin.com)/vikram-singh-ce/ | [**https://airloaf.github.io**](https://airloaf.github.io) |
| SUMMARY |
| Senior at SUNY University at Buffalo majoring in Computer Engineering. I bring sound skills in both software and hardware. Proficient in programming languages such as C, C++, Java and Python. Profoundly interested in systems programming and embedded systems. I enjoy and excel when working in a collaborative environment. Passion for hacking, modifying and tinkering outside of work/school. |
| EDUCATION |
| **SUNY University at Buffalo** | Buffalo, NY **Expected May ‘21**  Bachelor of Science, Computer Engineering **GPA: 3.991/ 4.0** College of Engineering and Applied Sciences | University Honors College | Association for Computing Machinery |

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| PROFESSIONAL EXPERIENCE |
| **Computer Engineering Intern | SRC, inc | Syracuse, NY May ‘20 – Aug ‘20**   * Explored and integrated software performance upgrades to boost throughput of radar systems written in C++ * Devised a mock client to benchmark performance of server operations   **Software Engineering Intern | Calspan | Buffalo, NY May ‘19 - May ‘20**   * Structured a python API to record and organize experiment configurations and data within an SQL database * Overhauled a front-end web application to tabulate and input experiment data using libraries such as React and Redux * Established a GUI record keeping application to track of the status of tires being tested within the tire research facility   **Software Engineering Intern | CytoCybernetics | Buffalo, NY**  **Jan. ‘19 – May ‘19 | Aug. ‘19 - May ‘20**   * Remodeled a C++ GUI codebase to utilize the Model-View-Controller design pattern * Refactored a C++ codebase to eliminate much of the repeated code   **Teaching Assistant | University at Buffalo | Buffalo, NY**   **Jan. ‘19 – May ‘19 | Aug. ‘19 - May ‘20**   * Instructed students on Systems Programming concepts through graded assessments and clarify questions in office hours |
| PROJECT EXPERIENCE |
| **Pintos, Operating Systems Project** C   * Architected a POSIX system call handler with support for synchronization among concurrent processes * Formulated a process scheduler to greatly improve CPU utilization   **MOS 6502 CPU Emulator Library** C++   * Developed an instruction accurate MOS 6502 CPU emulator as a C++ library * Heavily tested the library’s API using the Boost C++ library   **Chip8 Interpreter, A Video Game System Emulator** C++   * Developed a C++ library implementation of Chip8 with support of graphics and audio   **Electronic Lock** VHDL   * Architected an electronic lock purely through a hardware description language   **Bluetooth Controlled RC Car** C++, Java, Android   * Redesigned an RC Car to be operated by a smartphone via Bluetooth communication   **Stock History Viewer** JavaScript   * Formalized a GUI application to view and analyze historical stock data utilizing APIs provided by Alpha Vantage |

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| SKILLS | CERTIFICATIONS & AWARDS |
| **Programming Languages**  **Proficient:** C, C++, Java, Python  **Novice:** Javascript, VHDL, MSSQL, MYSQL  **Amateur:** Verilog, Matlab, R, C#, Ocaml  **Technologies**  Windows, Linux, Raspberry Pi, Arduino, Android, ROS, Git, SVN, Agile, Scrum, TDD, Embedded Systems, Operating Systems Development, FPGAs, Microcontrollers, OpenMP, MPI, Docker. | **Secret Security Clearance**  United States Government **Dean's List (All Semesters)**  University at Buffalo  **$5000 Provost Scholarship/year** University at Buffalo  **$300 Grace W. Capen Academic Award**  University at Buffalo  **$750 NYSATE Merit Scholarship**  NYSDOT  **Gold Level Problem Solving**  Hackerrank |

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| RELEVANT COURSEWORK |

Operating Systems, Systems Programming, Computer Organization, Computer Architecture, Algorithms, Data Structures, Parallel & Distributed Programming, Real-Time & Embedded Systems, Microprocessors, Robotics, Computer Security, Software Engineering