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**EDUCATION**

University of New Mexico: Bachelor of Science Expected Graduation: May 2022

Major: Computer Science | Minor: Mathematics CGPA: 3.73+/4.0

**COURSEWORK**

**Computer Science courses**

* Software Engineering
* Computer Networks
* Machine Learning
* Cyber security
* Data structure and Algorithm
* Operation systems
* Data Organization

**Mathematics**

* Numerical Computing
* Calculus II and III
* Discrete Mathematics
* Statistics and probability Theory

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**­RAJESH UPADHAYAYA**

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**PROJECTS (**[**github.com/upadhayayarajesh**](https://github.com/upadhayayarajesh)**)**

**Maze and Maze Solver (Java and JavaScript)**

* Using Java and JavaScript, created and solved maze from different algorithms (Depth First Search, Aldous-Broder, Randomized Kruskal's, Randomized Prim's, Recursive Division).

**Auction House (Java and MySQL)**

* Developed a system of multiple auction houses selling thousands of items, multiple agents buying items, and bank running on background to keep track of every-one's funds.

**Sudoku Solver (C programming)**

* Programmed a Sudoku puzzle solver in C by filling a 9X9 grid with digits so that each column, each row, and each of the nine 3X3 sub-grid that compose the boxes containing all the digits from 1 to 9.

**LCG and Cipher (C programming)­**

* Created an implementation of a Linear Congruential Generator so that it can be used to create a sequence of “random” numbers and use that LCG as part of a cipher algorithm to encrypt and decrypt text.

**Dominoes (Java and JavaFx)**

* Built a domino game using Java and JavaFx including domino which is a rectangular tile with a line dividing its face into two square ends with number of spots or blank played from 2 to 4 players.

**Ecommerce Website (React.js)**

* Building an e-commerce website using React.js for frontend, Java for backend, and MongoDB for the database.

**EXPERIENCE­­­**

**Research Intern | Los Alamos National Laboratories | Aug. 20 -Dec. 20**

* Developed containerized environment for reproducibility and traceability of scientific workflows and provide leverage container technologies to host workflow executions.
* Re-producibility by automatic collecting provenance metadata for each workflow component and encapsulation of the software stack in the application container.
* Building environments using Docker, Singularity, Kubernetes, Quay and Harbor for the allocation of the record trail(metadata).

**Software Developer Intern | SoftBenzInfosys | May. 2019 to Aug .2019**

* Analyzed data from 2000 users and used that data to increase the product stability, increased product attraction by 50%.
* Developed an online web portal (interactive portal) for Nepal government which include different GUI screens using React.js, HTML, CSS, and JavaScript for user Interface.
* Placed emphasis on performance and security of the developed system along with readability of the code.

**Technical Specialist | UNM IT | Jan. 2020 to current**

* Used hard drive and network interface card for re-imaging of operating systems into 1000 UNM computers that helps to improve the computer performance by 20%.
* Helped 20 departments of university with troubleshooting and issue related to simulation, network, laptop, printers, iMacs, and scanner.
* Developed configuration file code, instructional videos, and prepare slide on installation of 200 software available through UNM software center.

**SKILLS**

* Java
* Python
* Scheme
* Haskell
* MongoDB
* MATLAB
* C &C++
* JavaScript & CSS
* React.js & React Native
* HTML
* VHDL
* AWS
* MySQL

**ACTIVITIES**

* Got third position in UNM hackathon 2019.
* In charge of organizing Linux laptops for 250 students in 2021.
* Participated in Robotics competition in a group of 5 to build a wireless robot using Arduino.
* Volunteered in creating genetic algorithm in C ++ to find optimal box in a compact system.
* Best Tutoring awards at Engineering Student Services UNM.
* CO-Founder of GIHE Robotics club 2018.