

Rasmi Lamichhane | Résumé

Education

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The University of Colorado, Boulder

Bachelor of Computer Science

2012-Current

Experience

Laboratory For Playful Computation

Student Android Developer

Boulder, CO

Fall 2016-Present

University of Colorado Boulder Libraries

Student Assistant Digital Lab

Boulder, CO

Fall 2015-Fall 2016

Digitalizing different kind of archival material and processing it.

University of Colorado Boulder Libraries

Student Assistant LIT

Boulder, CO

Summer 2015

Web help desk, Troubleshooting software and hardware problems, image computer, printers problems and etc.

Computer Skills

Language: C/C++, Python, Java, HTML/CSS, Mathematica, SQL, Bash Shell Scripting, Regex

Tools: Unit Testing, Pair Programming, Rest and Soap, Agile/Scrum methodology, Waterfall, Databases

Extra: Github, Adobe Photoshop, Freehand, Microsoft Office

Projects

Sparki Pill Pusher

<https://git.io/v64Lp>

- Programmed a robot named Sparki. Sparki follows specified paths to fetch 1 of 5 bottles. <https://youtu.be/TKgePysJxr0>
- It uses light sensors to make sure that it stays on the defined path, and uses its ultrasonic sensors to find the fastest path to the bottle at an optimal angle.
- Sparki uses its RFID scanner to scan the pill bottle, making sure that the unique tag matches with the specified bottle number. If an incorrect bottle is approached, Sparki will beep, display a message that it is incorrect, and move back to the start to await more instructions.

Python Data visualization

<https://git.io/v68ax>

- Created a webpage using HTML, Python, and mySQL. <https://youtu.be/K5FWMMMd8d4>
- Displays an animated Choropleth map to visualize Carbon Dioxide Emissions per state in the US over the past two decades.
- The states are color-coded according to the annual amount of emissions per state in million metric tons of carbon dioxide, and a cursor hover over a particular state will display a breakdown of that state's Carbon emissions per type in petroleum, coal, and gas.

Weather Data visualization

<https://git.io/viN7J>

- Implemented a webpage that shows the weather across the United States. Used python programming language to grab the API so that it shows in the webpage. Used html for layouting and coloring the states and python for implementing different required functions.

Android Inventory App

<https://git.io/viOZW>

- Implemented an inventory app using Android Studio with Java and XML. Displays image, price and quantity of each item and calculates the overall amount of total items. Used various of textview, image view, buttons, linear and relative layout.
- User can add each item by pressing the + button and remove the item by pressing - button. Textview shows the count of the items and price for each in the screen and finally submit shows the overall cost of the transaction.

Rootfinding

<https://git.io/viNQe>

- Implemented the Root-finding in python using Newton's method, Newton's method with line search and cubic method. Used python programming with Dictionary and Tuple. Gives user a sense of difference between which function is diverging and converging faster.

Battleship

<https://git.io/viNQI>

- Implemented the battleship board game. The computer will hold the ships in the grid and the player will have to guess where those ships are. Used C++ classes, loops and different methods. User can choose the size of the board location of the ship.

Bag

<https://git.io/viNQ0>

- Implemented a bag of array and lists. Used C++ array, single and double linked list with classes, loops, pointers, and different methods. The features are adding and removing the item in the pocket of magic, potion and good depending on user wants to add.

Stacks and queues

<https://git.io/viNQA>

- Implemented stacks and queues of array, single linked list and double linked list. Used C++ array, single and double linked list with classes, loops, pointers, and different methods. Features are adding and removing and moving element depend on user's desire.

Extra Curricular

ALP(Applied Leadership Program), CLP(Core Leadership Program), Graphic Designing, Westminster Public Library(Volunteer in the computer class)2014, CUWIC(Women in Computing)