

David Calvin Blood

Meridian, Idaho 83642

(208) 800-9096 david.blood@mtchs.org

Career Goal:

To obtain a career starting and exiting businesses in the technology field

Education:

Meridian Technical Charter High School

www.mtchs.org

- Senior
- GPA: 3.84
- Software Developer Senior Focus Area

Graduation: 2022

Related Experience:

Web Design

2019 to present

- Programmed webpages in HTML
- Upgraded websites with PHP
- Built website in Atom for Spray Sprinklers business

Computer Science

2019 to present

- Assembled a basic game with Java
- Enabled website interactivity using JavaScript

Certifications:

OSHA 10 Hour General Industry

2021

Microsoft Office Specialist

2021

IC3 Certificate

2019

Job Experience:

Self-Employed

Lawncare

2015 to 2021

- Coordinated Lawncare
- Managed an Employee

Swimmin' The Blues

Swim Instructor

2019 to 2021

- Reported to Parents
- Taught Classes

Spray Sprinklers

Web Developer

2021

- Built Website

Skills:

Business Management

Eclipse IDE

Website Interactive JavaScript

Java

MS PowerPoint

Front-end Web Design

Atom IDE

MS Excel

Back-end Web Development

Honors/Activities/Services:

SkillsUSA

Member

2018 to present

- Computer Programming Contest Bronze Medal 2021
- Related Technical Math Contest Silver Medal 2021

Local Web Design Competition

Placed Second

2020

Sophomore Service Project

3 Week Project

2019

Eagle Scout Award

Plaque

2018

David Calvin Blood
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References

David Gardner
Capital Eleven
Managing Partner
208 471 0007
David@capitaleleven.com

Karl von der Ehe
Meridian Technical Charter High School
English Teacher
208 288 2928 ext. 103
karl.vonderehe@mtchs.org

Cody Miller
Ultra Labs
Founder
208 571 6351
cody@ultralabs.io

OFFICIAL TRANSCRIPT

Blood, David Calvin
MERIDIAN, ID 83642

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3800 N. Locust Grove Rd.
Meridian, ID 83646
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http://www.mtchs.org

Grade: **12**
Gender: **M**
Birthdate: **07/16/2004**

Grade Level	Semester 1	Credits	Grade Level	Semester 2	Credits	TEST SCORES		
18-19 Heritage Middle School			18-19 Meridian Technical Charter High School			ACT		
9	Spanish 1A	A 1.0	9	Advanced Technical Learning	P 1.0	Composite	33.0	02/06/2022
9	Spanish 1B	A 1.0	9	020612BACC HS Math 2B-Advanced	A 1.0	English	33.0	02/06/2022
18-19 Meridian Technical Charter High School			9	051604X School To Work	P 1.0	Reading	36.0	02/06/2022
9	020612AACC HS Math 2A-Advanced	A 1.0	9	080314B Flexible Learning Time 2	P 1.0	Math	28.0	02/06/2022
9	080314A Flexible Learning Time 1	P 1.0	9	10001CB Technology Tools B	A 0.5	Science	34.0	02/06/2022
9	10001CA Technology Tools A	A 0.5	9	100104B CC English 1B	A 1.0	Compass		
9	100104A CC English 1A	A 1.0	9	120124B Spanish 2B	B 1.0	Math	0.0	00/00/0000
9	120124A Spanish 2A	C 1.0	9	170104B Earth Science B	A 1.0	Reading	0.0	00/00/0000
9	170104A Earth Science A	A 1.0	9	30710CA Internet Core	A 1.0	Language	0.0	00/00/0000
9	30200CA Computing Core	A 1.0	9	9 Freshmen Citizenship and Professionalism	P 1.0	SAT I		
19-20 Meridian Technical Charter High School			19-20 Meridian Technical Charter High School			Critical Reading	720.0	04/13/2022
10	020613AACC HS Math 3A-Advanced	A 1.0	10	020613BACC HS Math 3B-Advanced	A 1.0	Math	630.0	04/13/2022
10	041013A US History-Comprehensive A	A 1.0	10	041013B US History-Comprehensive B	A 1.0	Writing	0.0	04/13/2022
10	100204A CC English 2A	A 1.0	10	10 Sophomore Citizenship & Professionalism	P 1.0	Composite	1350.004	04/13/2022
10	171104A Biology 1A	A 1.0	10	100204B CC English 2B	A 1.0	SAT II		
10	Online Entrepreneurship	C 1.0	10	140104X Health	A 1.0	American History	0.0	00/00/0000
10	Web1 Web Design 1	A 1.0	10	171104B Biology 1B	A 1.0	Biology	0.0	00/00/0000
20-21 Meridian Technical Charter High School			10	BUS1 Business 1	A 1.0	Chemistry	0.0	00/00/0000
11	031614A Physics-Conceptual A	A 1.0	10	CS1A Computer Science 1A	A 0.5	English Composition	0.0	00/00/0000
11	100304A CC English 3A	A 1.0	10	Online Creative Writing	A 1.0	English Proficiency	0.0	00/00/0000
11	205505A Calculus 1A-Advanced	A 1.0	10	Web1B Web 1B	A 0.5	Math Level 1	0.0	00/00/0000
11	273004A American Government A	A 1.0	10	031614B Physics-Conceptual B	A 1.0	Math Level 2	0.0	00/00/0000
11	CS1B Computer Science 1B	A 2.0	11	100304B CC English 3B	A 1.0	Physics	0.0	00/00/0000
21-22 Meridian Technical Charter High School			11	11 Junior Citizenship & Professionalism	P 1.0	Spanish (reading only)	0.0	00/00/0000
12	100404A CC English 4A	A 1.0	11	205505B Calculus 1B-Advanced	A 1.0	Spanish w/Listening	0.0	00/00/0000
12	205605A Calculus II A-Advanced	B 1.0	11	221510Y Employment Preparation	A 1.0	Writing	0.0	00/00/0000
12	CS3A Computer Science 3A	A 2.0	11	273004B American Government B	A 1.0	ISAT		
			11	BUS2A Business 2	A 1.0	Math	0.0	00/00/0000
			11	CITIZEN Citizenship (Civics) Test	P 0.0	Language	0.0	00/00/0000
			11	CS2 Computer Science 2	A 1.0	Reading	0.0	00/00/0000
			11	Web3 Web Design 3	A 1.0	Science	0.0	00/00/0000
						GPA INFORMATION		
						Grade	S1	S2
						09	3.7333	3.8182
						10	3.6667	4.0000
						11	4.0000	4.0000
						12	3.7500	
						Summary		
						Total Units Earned:	52.0	
						Total Units Attempted:	52	
						Cumulative GPA:	3.8636	
						Graduation Date:	05/20/2022	
						Class Rank:	13 out of 40	
						GRADE SCALE		
						A	4.00	
						B	3.00	
						C	2.00	
						D	0.00	
						NC	0.00	
						I	0.00 (Incomplete)	
						*Competencies not met.		
						Not Included in GPA		
						P	Passing	
						R	Retake	
						GPA is weighted based on credit hours.		
						Some courses not included in GPA.		



Junior Pre-Internship Evaluation Form Computer Science/Web Development

Student Calvin Blood (X)	Date 4/20/21
Evaluated by Duane Erickson (D)	

Juniors:

1. Please rate yourself on the following checklist for your skills related to your career pathway.
2. Have your Tech Teacher rate you on the following checklist and sign.
3. Schedule a meeting with your Tech Teacher to discuss your skills and abilities.
4. Scan the completed form with rubric (2 pages) to add to your PDF Portfolio.
5. Submit completed form to Ms. Deitchler for the Employment Prep class grade.

TECHNICAL SKILLS	Not Applicable	Exposure Only	Limited Competence/ Novice	Competent Proficient/ Apprentice	Mastered Journeyman/ Trainer
Web Development					
Front-end web design using HTML5 and CSS3				X D	
Front-end web design using WYSIWYG (Wix, Dreamweaver)				X D	
Write JavaScript to provide interaction with web page elements				X D	
Write JQuery to provide interaction with web page elements			X D		
Design, build, and/or maintain web sites using CMS (WordPress)		X		D	
Create web mockups (Photoshop)	X		D		
Logo & Icon design (Illustrator)			X D		
Create UX/UI designs (Adobe XD)	X D				
Write php to dynamically create web content			X D		
Write MySQL statements to work with databases and tables			X D		
Combine php and MySQL to create a database driven web site			X D		
Design Relational Database		X D			
Use cPanel (File Manager, php MyAdmin, MySQL Databases) to create, update, and/or manage websites				X D	
Software Development					
Develop effective solutions to problems using other resources (internet, books, journals)				X D	
Conduct trial runs of applications to be sure they will produce the desired information and that the instructions are correct				X D	
Correct errors by making appropriate changes and rechecking the program to ensure that the desired results are produced				X D	
Write object oriented code using Java				X D	
Write object oriented code using C#	X D				
Knowledge of additional programming languages, please list:	X D				
Use version control software – (git, svn)			X D		
<i>List other IT/Media skills and comments not listed above.</i>					

Technical Skill Assessment Feedback Rubric

Performance Level	Insufficient Work Shown	Exposure Only	Limited Competence - Novice	Competent - Proficient/Apprentice	Mastered - Journeyman/Trainer
Definition of Performance Level	The student does not provide sufficient work to evaluate the essential content, knowledge, and/or skills needed to demonstrate proficiency.	With significant supervision and/or prompting the student can demonstrate, apply, or transfer the essential content, knowledge, and/or skills needed to demonstrate proficiency.	With <i>minimal prompting</i> and/or assistance the student can demonstrate, apply, or transfer the essential content, knowledge and/or skills needed to demonstrate proficiency.	The student can <i>independently</i> demonstrate, apply, or transfer the essential content, knowledge, and/or skills on a new task or in a new situation.	The student <i>consistently and independently</i> demonstrates the ability to analyze, integrate, or formulate progressive or new knowledge and/or skills on a new task or in a new situation.
Rubric Criteria	There is no skill completion evident and/or a demonstration of knowledge, Disjointed, Limited range of words.	Completion of skill or demonstration of knowledge occurs only with the assistance of students/teacher, Evidence of knowledge is unstructured or simply reproduced from class material. (Limited experience-focus is learning like on-the-job experience)	Rote transfer of skills or knowledge present, Recall information with minimal hints from students/teacher, Match or reproduce a skill, Identify skill/knowledge from a list. (Focus is on applying and enhancing knowledge and skill to work toward independence)	Employment of skills or knowledge to create or formulate new concepts is present, but demonstrates no consistency in the application of knowledge or skills use. (Focus is on broader strategic issues and moving toward self- knowledge)	Business/Professional, Ability to teach/model skills or knowledge, Create something "new" with the presented material or skills, Apply the skills or knowledge to garner results in a different way, the "WOW" factor (Focus is on continued learning and ever-increasing self-knowledge goals)
Examples	EX: Incomplete work, lack of clarity, one-word answers	EX: Instructions have not been followed, some questions have not been answered, answers may not be in complete sentences, and there is clearly a lack of basic grammar/usage skills.	EX: Instructions have been mostly followed, but there is no evidence of understanding. Written work lacks evidence of basic usage concepts or may lack structure	EX: Instructions have been followed and completed with correct information, but there is little evidence of analysis, creativity, comparing, assessing, etc. Written work is composed and shows evidence of skilled usage concepts, but may not be consistent.	EX: Instructions have been followed and completed with correct information and there is clear demonstration of evidence showing analysis, creativity, comparing, assessing, etc.

NAME: Calvin Blood ✓

TECH PATHWAY TEACHER: Duane Erickson (D)

1. Rate yourself in each area by highlighting or circling the letter on the rating scale S, M, W, U.

S=Strength: Top 10% of personal skills. Displays at all time, without exception, a consistently high level of the job skill. (10 pts)

M=Meets Expectations: Maintains an effective and consistent level of performance of the job skill. (9 pts)

W=Work in Progress: Displays inconsistency in the performance of the job skill and frequently falls below acceptable. (8 pts)

U=Unsatisfactory: Regularly fails to meet required outcomes requiring intervention, repetition of duty or completion by others. (0 pts)

2. After rating yourself, email to your technology pathway teacher to have them rate you in each area by highlighting or circling the letter on the rating scale (above) S, M, W, U.

Communication

- | | | | | |
|-------------------------------------|-------------------------------------|---|---|---|
| S | <input checked="" type="checkbox"/> | W | U | Reports Accurately and Concisely |
| S | <input checked="" type="checkbox"/> | W | U | Comprehension - Pays attention and catches on to ideas and situations |
| S | <input checked="" type="checkbox"/> | W | U | Follows intent of oral directions/instructions |
| S | <input checked="" type="checkbox"/> | W | U | States information in a concise, clear and logical order |
| S | <input checked="" type="checkbox"/> | W | U | Formulates and clarifies questions |
| S | <input checked="" type="checkbox"/> | W | U | Answers questions accurately |
| S | <input checked="" type="checkbox"/> | W | U | Uses appropriate vocabulary/grammar |
| S | <input checked="" type="checkbox"/> | W | U | Uses non-verbal body language appropriately |
| S | <input checked="" type="checkbox"/> | W | U | Presents information effectively to groups |
| <input checked="" type="checkbox"/> | M | W | U | Read, comprehend and apply new material |

Interpersonal

- | | | | | |
|-------------------------------------|-------------------------------------|---|---|---|
| S | <input checked="" type="checkbox"/> | W | U | Believes and respects self--Confidence |
| S | <input checked="" type="checkbox"/> | W | U | Tact - Is careful not to hurt others feelings or cause anger especially when expressing opinions |
| S | <input checked="" type="checkbox"/> | W | U | Enthusiasm - Demonstrates desire to learn and please; eager, earnest, zealous worker, positive attitude |
| S | <input checked="" type="checkbox"/> | W | U | Cooperation - Demonstrates willingness to work as a team member and assist both internal and external customers |
| S | <input checked="" type="checkbox"/> | W | U | Exhibits openness and respect for others |
| S | <input checked="" type="checkbox"/> | W | U | Exercises flexibility, patience and tolerance when dealing with others |
| S | <input checked="" type="checkbox"/> | W | U | Using suggestions about improving skills with a positive attitude |
| S | <input checked="" type="checkbox"/> | W | U | Demonstrates ability to negotiate differences with others |
| <input checked="" type="checkbox"/> | M | W | U | Leadership - Gets others to cooperate and channel efforts towards a common goal |
| S | <input checked="" type="checkbox"/> | W | U | Poise - Maintains self-control in actions, speech and emotions |

Work Activity Skills

- | | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|---|---|
| <input checked="" type="checkbox"/> | M | W | U | Produces type, quality and amount of work required |
| S | <input checked="" type="checkbox"/> | W | U | Maintains punctuality and meets attendance requirements |
| S | <input checked="" type="checkbox"/> | W | U | Continues difficult tasks until completed: Perseverance |
| S | M | <input checked="" type="checkbox"/> | U | Initiative - Finds work to do without being told: is self-motivated, is first one to begin work |
| S | <input checked="" type="checkbox"/> | W | U | Accepts assignments/responsibilities |
| <input checked="" type="checkbox"/> | M | W | U | Reliability - Completes tasks assigned without constant supervision |
| <input checked="" type="checkbox"/> | M | W | U | Takes responsibility for own actions whether positive or negative and performs any required actions |
| S | <input checked="" type="checkbox"/> | W | U | Manages time effectively by prioritizing tasks |
| S | <input checked="" type="checkbox"/> | W | U | Respects rights and property of others |
| S | <input checked="" type="checkbox"/> | W | U | Adheres to policies and regulations of health, honesty and safety |
| S | <input checked="" type="checkbox"/> | W | U | Presents a clean, professional appearance and follows company dress code |
| S | <input checked="" type="checkbox"/> | W | U | Adaptability - Adjusts to changes in schedules, job assignments, supervisors |
| S | <input checked="" type="checkbox"/> | W | U | Supports goals, objectives and mission of organization |
| S | <input checked="" type="checkbox"/> | W | U | Knows basic employee/student rights, responsibilities and reporting procedures |
| S | M | <input checked="" type="checkbox"/> | U | Suggest or make workplace improvements properly |
| S | <input checked="" type="checkbox"/> | W | U | Keeps work area in a clean, organized, and safe condition |
| S | <input checked="" type="checkbox"/> | W | U | Meets deadlines |

Problem Solving and Reasoning Skills

- | | | | | |
|-------------------------------------|-------------------------------------|---|---|--|
| <input checked="" type="checkbox"/> | M | W | U | Recognizes problems that need to be solved |
| S | <input checked="" type="checkbox"/> | W | U | Identifies procedures or steps to completion (goals or milestones) |
| S | <input checked="" type="checkbox"/> | W | U | Gathers resources |
| <input checked="" type="checkbox"/> | M | W | U | Utilizes resources to solve problems and expand knowledgebase |
| S | <input checked="" type="checkbox"/> | W | U | Collects, organizes and interprets information |
| S | <input checked="" type="checkbox"/> | W | U | Formulates alternative approaches |
| S | <input checked="" type="checkbox"/> | W | U | Analyzes and selects most effective approach |
| S | <input checked="" type="checkbox"/> | W | U | Periodically reviews progress of goals or milestones |
| <input checked="" type="checkbox"/> | M | W | U | Corrects errors |
| S | <input checked="" type="checkbox"/> | W | U | Summarizes conclusion and communicates results or final product |



presents

Certificate of Completion

to

David Blood

has completed the OSHA 10-Hour General Industry Course.
All requirements have been satisfactorily met.

Trainer: Andrea Foster Mack

Date: February 02, 2021

As an OSHA authorized trainer, I verify that I have conducted this OSHA outreach training class in accordance with OSHA Outreach Training Program requirements. I will document this class to my authorizing OSHA training organization. Upon successful review of my documentation, I will provide each student his or her completion card within 90 days of the end of class.

www.careersafeonline.com



Microsoft Office Specialist – Associate

Calvin Blood

has successfully completed the requirements to be recognized as a

Microsoft Office Specialist – Associate

PowerPoint and PowerPoint 2019
Word and Word 2019
Excel and Excel 2019

Date of achievement: January 28, 2021
verify.certipoint.com wnxh-48uk


Satya Nadella
Chief Executive Officer





CALVIN BLOOD

Is hereby granted this certification for having demonstrated basic computer hardware, software and Internet knowledge and skills through the successful completion of the examinations comprising IC3.

Key Applications - Living Online - Computing Fundamentals

IC3 GS5

IC3 GS5

IC3 GS5

ROBERT WHELAN
President and Chief Executive Officer
Pearson VUE

MAY 8, 2019

DATE ISSUED

UATw-sFMY 
verify.certiport.com



Binary Tree

The Binary Tree project was a cumulation of several concepts from Computer Science 3. Using recursion and inheritance we had to build a Binary tree that could be traversed, searched, added to, and removed from. We also had to set up a method for the tree to randomly generate values if none were entered by the user. The Binary Tree was an enjoyable project because it required keeping track of what you are moving and juggling a lot of components. It took a lot of effort to get everything in the right spot, but once it worked, it was quite enjoyable to traverse the tree and see the program running.

```
print("Start Binary Tree Interface? y/n");
end = scan.next();
if(end.equals("y")||end.equals("Y")) {
    end="";
}else {
    end="stop";
}
if(end.equals("")) {
    print("Would you like to randomly generate a Binary Tree? y/n");
    String temp = scan.next();
    if(temp.equals("y")||temp.equals("Y")) {
        Random rand = new Random();

        print("What is the upper limit for the values?");
        String temp2;
        int t;
        while(true) {
            temp2 = scan.next();
            try {
                t = Integer.parseInt(temp2);
                break;
            }catch(NumberFormatException e) {
                print("Please enter a number:");
            }
        }

        print("How many values?");
        int r;
        while(true) {
            temp = scan.next();
            try {
                r = Integer.parseInt(temp);
                break;
            }catch(NumberFormatException e) {
                print("Please enter a number:");
            }
        }

        for(int i = 0; i < r; i++) {
            tree.addElement(rand.nextInt(t));
        }
        print("Binary Tree Generated");
    }
}
```

```
public T find(T targetElement) throws NoSuchElementException{
    if(node == null){
        node = root;
    }

    Node<T> inner = node;
    if(inner.getValue().compareTo(targetElement)==0) {
        return node.getValue();
    }

    if(inner.hasLeftChild() {
        previousNode=inner;
        node=inner.getLeft();

        //System.out.println(node.getValue());
        try {
            if(find(targetElement)!=null) {
                return node.getValue();
            }
        }catch(NoSuchElementException e){
        }
    }

    node=inner;
    if(inner.hasRightChild() {
        previousNode=inner;
        node=inner.getRight();

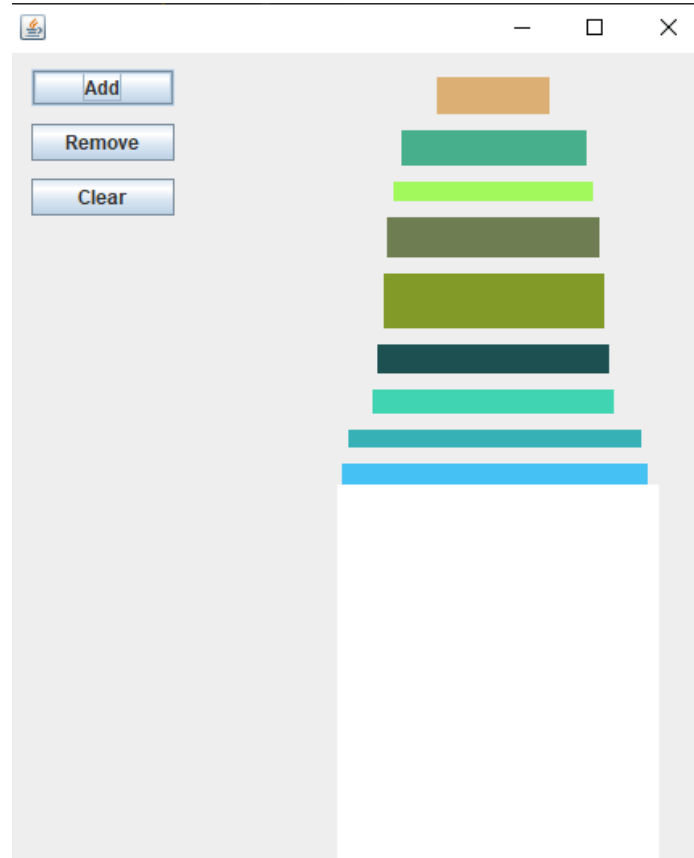
        //System.out.println(node.getValue());
        try {
            if(find(targetElement)!=null) {
                return node.getValue();
            }
        }catch(NoSuchElementException e){
        }
    }

    previousNode=inner;
    throw new NoSuchElementException();
}
```

```
Binary Tree Generated
Would you like to (a)dd values, (r)emove a value, (f)ind a number, (p)rint information, or (q)uit the interface?
p
information to get:
selected (n)ode's infromation
m(i)nimium value in tree
m(a)ximum value in tree
(s)ize of the tree
(p)rint the entire tree
(d)eselect node
(q)uit information
p
21
├── 17
│   ├── 9
│   │   ├── 1
│   │   ├── 2
│   │   └── 9
│   │       ├── 6
│   │       └── 10
│   └── 19
│       └── 27
│           ├── 23
│           │   ├── 22
│           │   ├── 21
│           │   ├── 23
│           │   ├── 24
│           │   └── 26
│           └── 32
│               ├── 29
│               └── 29
```

Pez Dispenser

The Pez Dispenser Project was a test of my knowledge of stacks and queues. We had to use either a stack or a queue to build a GUI that acted like a Pez dispenser with one difference. The Pez pieces were of random size and had to be sorted by width when they were added. This required a sorting algorithm, which was fun to build and implement. The Pez Dispenser was challenging because I also had to make sure the Pez pieces didn't overflow the container, which was tough when you didn't know how many would fit in it. The result of the project was a fun GUI that you could add and remove blocks from.



```
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setBounds(100, 100, 450, 550);
contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);
setLayout(new BorderLayout(contentPane, BorderLayout.X_AXIS));

ButtonPlace.setMaximumSize(new Dimension(200, 32767));
contentPane.add(ButtonPlace);
ButtonPlace.setLayout(null);

out.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

        if(candies.size()>0) {

            candyLand.removeAll();
            candies.remove(0);

            for(Pez treat : candies){
                JPanel wrapper = new JPanel();
                wrapper.setPreferredSize(new Dimension(200, treat.getHeight));
                wrapper.setBackground(new Color(238,238,238));
                wrapper.add(treat);
                candyLand.add(wrapper);
                revalidate();
            }
        }
    }
});
```



Minewalker Game

The Minewalker Game was the final project of Computer Science 1B, taken during my junior year of high school. The goal of the project was to create a functioning replica of the game using Java. The Project was completed solely by me, and as a result I took several weeks to write the code, test, and debug. Some of the tools I used to complete the game were the java textbook provided to me, Stack Overflow, and Eclipse IDE. One of the most challenging things I had with this project was creating a path from start to end and guaranteeing it was mine free. To solve this problem, I generated an array list of points and used code from an older project to generate the path and stored the points of the path in the array list, to be accessed when assigning mines their values and colors. Overall, this project is one of my favorites, and one that I put more effort into

```
import java.awt.Color;

/**
 * @author David Blood
 */
@SuppressWarnings("serial")
public class MineWalkerPanel extends JPanel {
    private MineFieldButton[][] tiles;
    private int size;
    private ArrayList<int> path = new ArrayList<int>();
    private int[] Pos = new int[2];
    private Random rand = new Random();

    public MineWalkerPanel(ActionListener listener, int size, int difficulty) {
        this.size = size;
        tiles = new MineFieldButton[size][size];
        for (int i = 0; i < size; i++) {
            for (int j = 0; j < size; j++) {
                tiles[i][j] = new MineFieldButton();
                tiles[i][j].addActionListener(listener);
                tiles[i][j].setEnabled(false);
                tiles[i][j].setXLoc(i);
                tiles[i][j].setYLoc(j);
                this.add(tiles[i][j]);
            }
        }
        RandomPath walker = new RandomPath(size);
        walker.createWalk();
        System.out.println(walker.toString());
        ArrayList<Point> spots = walker.getPath();
        for (int i = 0; i < spots.size(); i++) {
            Pos[0] = (int)spots.get(i).getX();
            Pos[1] = (int)spots.get(i).getY();
            path.add(i, Pos.clone());
        }
        for (int i : path) {
            //tiles[i][0][i[1]].setBackground(Color.blue);
            tiles[i][0][i[1]].onPath();
        }
        this.setLayout(new GridLayout(size, size, 1, 1));
        endStartBs();
    }
}

private class ButtonLineUp extends JPanel {
    private Dimension Bsize;
    public ButtonLineUp(int width, int height) {
        Bsize = new Dimension(width, height);
        this.add(pathB());
        this.add(minesB());
        this.add(loseB());
        this.add(gridSize());
    }
}

public void loseLife() {
    life--;
    lives.setText("Lives: " + life);
    ruleBoard.remove(lives);
    ruleBoard.add(lives, BorderLayout.SOUTH);
    repaint();
}

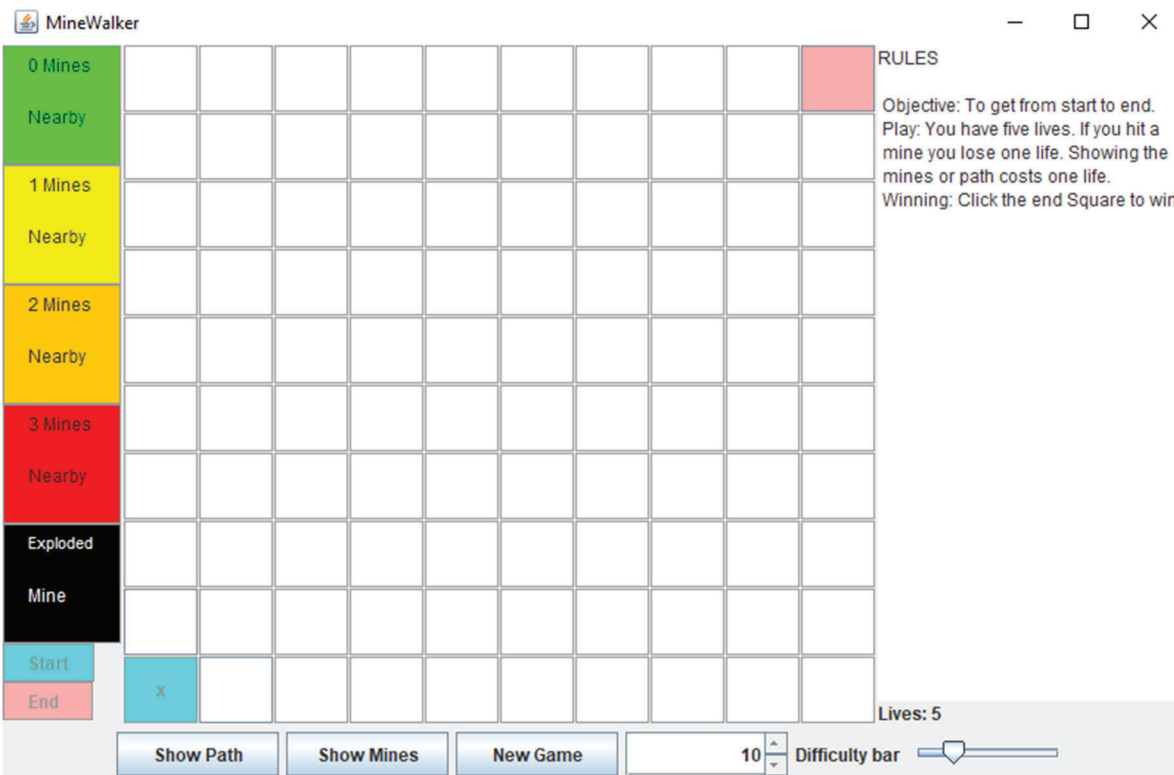
private class MineFieldPanel(int size) {
    this.size=size;
    this.setLayout(new BorderLayout());
    field = new MineWalkerPanel(new MineFieldListener(), size, 25);
    this.setPreferredSize(new Dimension(size*80,size*50));
    Buttons = new ButtonLineUp(110,30);
    colorKey = new keys();
    ruleBoard = new Rules();
    colorKey.setLayout(new BoxLayout(colorKey, 1));
    add(Buttons, BorderLayout.SOUTH);
    add(field, BorderLayout.CENTER);
    add(colorKey, BorderLayout.WEST);
    add(ruleBoard, BorderLayout.EAST);
}

private class MineFieldButton {
    private ButtonLineUp Buttons;
    private int size = 0;
    private JSpinner sizeGet;
    private int life = 5;
    private JLabel lives;
    private JButton showPathButton;
    private JButton showMinesButton;
    private JSlider difSlider;
}

public MineFieldPanel(int size) {
    this.size=size;
    this.setLayout(new BorderLayout());
    field = new MineWalkerPanel(new MineFieldListener(), size, 25);
    this.setPreferredSize(new Dimension(size*80,size*50));
    Buttons = new ButtonLineUp(110,30);
    colorKey = new keys();
    ruleBoard = new Rules();
    colorKey.setLayout(new BoxLayout(colorKey, 1));
    add(Buttons, BorderLayout.SOUTH);
    add(field, BorderLayout.CENTER);
    add(colorKey, BorderLayout.WEST);
    add(ruleBoard, BorderLayout.EAST);
}

public void loseLife() {
    life--;
    lives.setText("Lives: " + life);
    ruleBoard.remove(lives);
    ruleBoard.add(lives, BorderLayout.SOUTH);
    repaint();
}

private class ButtonLineUp extends JPanel {
    private Dimension Bsize;
    public ButtonLineUp(int width, int height) {
        Bsize = new Dimension(width, height);
        this.add(pathB());
        this.add(minesB());
        this.add(loseB());
        this.add(gridSize());
    }
}
```



The Shopping Cart

The Shopping Cart was an assignment from Computer Science 2 in my junior year of high school. The assignment was one I quite enjoyed and did extra work on to make it work the way I thought it should work. I spent a little over a week writing all the HTML, CSS, PHP and even a little JavaScript. The purpose of the assignment was to be able to apply our knowledge of PHP. I used PHP to perform calculations and print out a receipt with all the information in the form. What caused me trouble on this assignment was my expanding shopping cart. I had attempted to use PHP to add items, but that only could add one item. I ended up using JavaScript to add item and price inputs.

```
index.php
1 <?php
2 include('head.html');
3
4 ?>
5 <script type="text/javascript">
6 function addItem() {
7
8     var newItem = document.createElement('div');
9
10
11     newItem.innerHTML = '<p class="fields"><input class="items" type="text" name="item[]" size="20" maxleng
12
13
14     document.getElementById("ItemsSpot").appendChild(newItem);
15 }
16 </script>
17 <form action="handle_cart.php" method="post">
18 <section id="coloring">
19 <fieldset>
20 <legend>Enter your items in the cart below:</legend>
21
22 <p class="otherInfo"><label>Name: </label><input id="nameI" type="text" name="name"
23 <p class="otherInfo"><label>Mailing Address: </label><input id="mailI" type="text" name="mail"
24 <p class="otherInfo"><label>Email Address: </label><input id="emailI" type="email" name="email"
25
26 <div id="heads"> <p id="itemHead"><strong>Items:</strong> </p> <p id="priceHead"><strong>Price:</strong>
27
28 <p class="fields"><input class="items" type="text" name="item[]" size="20" maxleng
29
30 <p class="fields"><input class="items" type="text" name="item[]" size="20" maxleng
31
32 <p class="fields"><input class="items" type="text" name="item[]" size="20" maxleng
33
34 <p class="fields"><input class="items" type="text" name="item[]" size="20" maxleng
35
36 <p class="fields"><input class="items" type="text" name="item[]" size="20" maxleng
37 <div id="ItemsSpot">
38
39 </div>
40
41 <input type="button" class="button" value="Add Item" onclick="addItem();" />
42
43 <p ><label>Credit Card: </label><input id="cardI" type="text" name="card" maxleng
44
45
46
47 </fieldset>
48 <p align="center"> <input type="submit" name="submit" value="Submit my Information"></p>
49 </section>
50 </form>
51
52 <?php
53 include('footer.html');
54
55 ?>
```

```
handle_cart.php
1 <?php
2 include('head.html');
3
4
5 foreach ($_REQUEST['item'] as $key => $value) {
6     $items[] = $value;
7 }
8 foreach ($_REQUEST['cost'] as $key => $value) {
9     $costs[] = $value;
10 }
11
12 >
13 <section id="coloring">
14 <article id="receipt">
15 <h3><strong>Receipt</strong></h3>
16
17
18 </article>
19
20 </section>
21
22 <?php
23 $costs = array_map(function($num){return number_format($num,2);}, $costs);
24 $subtotal=0;
25 $tax=0;
26 $total =0;
27
28 echo "<article class = 'info'> $_REQUEST[name]</article> </br>";
29 echo "<article class = 'info'> $_REQUEST[mail]</article> </br>";
30 $datetime = new DateTime();
31 $datetime->format('Y-m-d');
32 echo "<article class = 'info'> $datetime </article>";
33
34 foreach ($items as $key => $value) {
35     echo "<p id='Ritem'>$items[$key]</p> ";
36
37     echo "<p id='Rcost'>$.<strong>$costs[$key] </p>";
38 }
39
40 foreach ($costs as $key => $value) {
41     $subtotal+=$value;
42 }
43 echo "<article class='nums'>Subtotal: $. $subtotal.</article></br>";
44
45 $tax = $subtotal*0.06;
46 echo "<article class='nums'>Tax: $. $tax.</article></br>";
47
48 $total = $subtotal+ $tax;
49 echo "<article class='nums'>Total: $. $total.</article></br>";
50
51 $cardNum = $_REQUEST[card];
52
53 echo"<article class = 'info'>Payment method: card . "</br>";
54 echo "*****<strong>substr($cardNum, -4).</article></br>";
55
56 >
```

The Shopping Cart

Receipt

Calvin Blood
Meridian, Idaho 83642
2021-02-18

Book	\$15.00
Tie	\$20.00
JavaScript	\$5.50
PHP	\$8.00
HTML	\$150.00
Subtotal:	\$198.5
Tax:	\$11.91
Total:	\$210.41

Payment method: card
*****4444

The Shopping Cart

Enter your items in the cart below:

Name:

Mailing Address:

Email Address:

Items:	Price:
<input type="text" value="Book"/>	<input type="text" value="\$15.00"/>
<input type="text" value="Tie"/>	<input type="text" value="\$20.00"/>
<input type="text" value="JavaScript"/>	<input type="text" value="\$5.50"/>
<input type="text" value="PHP"/>	<input type="text" value="\$8.00"/>
<input type="text" value="HTML"/>	<input type="text" value="\$150.00"/>

Credit Card:

Spray Sprinklers Website

I built a website for Spray Sprinklers The website is designed for signups for sprinkler blowouts, to increase Spray Sprinklers my client pool. I also keep the page up to date, so I devote time weekly or daily to working on it. When I built the site, I implemented a data structure and table that allows for the editing of requests and the marking done of completed ones. The development of the site took me two months, and I had several large problems along the way, including submission emails. One of the best ways I have found to resolve those problems was to refer to previous work and to research my problems. A lot of times I googled ways to do something differently, or how a specific method or tag works. You can check out the website I built at spraysprinklers.com.

```
script.html
1 <script>
2 window.onload = function() {
3     myFunction()
4 };
5
6 var header = document.getElementById("myNav");
7 var sticky = header.offsetTop;
8
9 function myFunction() {
10     if (window.pageYOffset > sticky) {
11         header.classList.add("sticky");
12     } else {
13         header.classList.remove("sticky");
14     }
15 }
16 </script>

header.html
1 <!doctype html>
2 <html lang="en">
3
4 <head>
5     <meta charset="utf-8">
6     <title>Pro Mows</title>
7     <link href="styles.css" rel="stylesheet" type="text/css" />
8 </head>
9
10
11
12 <body>
13 <section id="header">
14 <h1>Pro Mows</h1>
15 </section>
16 <nav class="nav" id="myNav">
17 <section id="logo"></section>
18 <article><a id="home" href="index.php">
19 <p>Home</p>
20 </a></article>
21 <article><a href="about.php">
22 <p>About</p>
23 </a></article>
24 <article><a href="Signup.php">
25 <p>Sign Up</p>
26 </a></article>
27 <article id="contactUs"><a href="ContactUs.php">
28 <p>Contact Us</p>
29 </a></article>
30 </nav>

styles.css
<?php
include('header.html');
include('script.html');
?>

<section id="main">
<section id="contactform">
<h3>Contact Form</h3>
<form action="formmail.php" method="post" >
<p>
<label>Full Name:</label>
<input type="text" placeholder="Enter your full name" required name ="fullname"/>
</p>
<p>
<label>Email:</label>
<input type="email" placeholder="Enter your email" required name ="email"/>
</p>
<p>
<label>Phone:</label>
<input type="tel" placeholder="Enter your phone number" name ="phone"/>
</p>
<p>
<label>Comments:</label>
<textarea placeholder="Comments and Critiques" required name ="comments"></textarea>
</p>
<p>
<input type="submit" class="button" />
<input type="reset" class="button"/>
</p>
</form>
</section>
</section>

ContactUs.php
<?php
include('footer.html');
?>

Lawn
> images
> Invoices
about.php
ContactUs.php
footer.html
formmail.php
header.html
index.php
script.html
Signup.php
styles.css
```